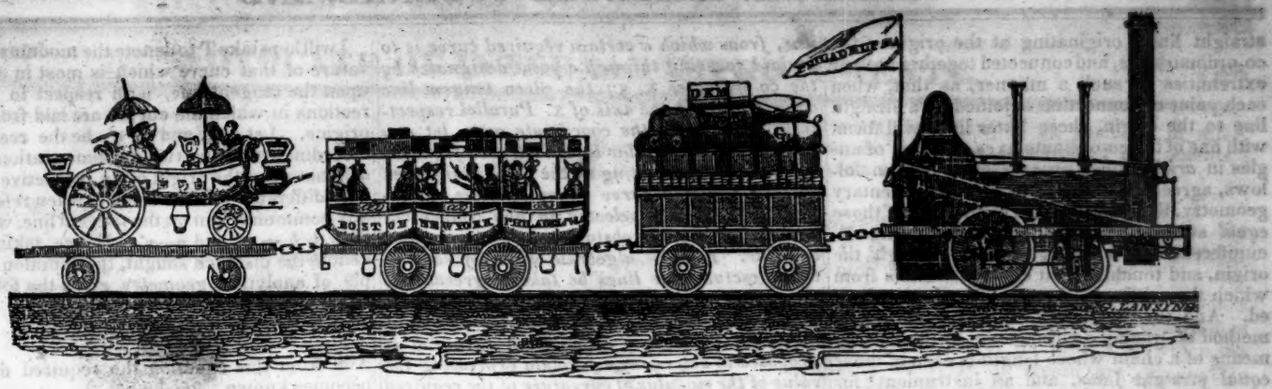


# AMERICAN RAILROAD JOURNAL,
## AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, MARCH 22, 1834.


Errata.—In the article on *Blanchard's boat*, page 117, vol 3, No. 8, 1st column, for "Dunkirk," read "*Portland*"; 2d column, for "enterprise of Philadelphia," read "*Pennsylvania.*"

Pennsylvania Portage Railroad.—By the following extract from the Pittsburgh Gazette, we learn that the Portage Railroad is now ready for use. This is a very important link in the improvements in Pennsylvania. It opens a direct intercourse between Philadelphia and Pittsburgh, and notwithstanding the trouble and delay of a transfer of freight from boats to railroad cars, and again to boats, Philadelphia will derive immense benefit from the work.

Portage Railway Office,
Hollidaysburgh, March 13, 1834.

Dear Sir,—It will, doubtless, be gratifying to the citizens of Pittsburgh to learn that the Portage Railroad will be opened for public use on Tuesday, the 18th instant. The Western, Juniata, and Eastern Divisions of the Canal are filled, and ready for transportation—therefore, on that day, a line of communication will be opened, uninterrupted, between your city and Philadelphia.

The rates of Toll to be received on the Portage have been fixed by the Board of Canal Commissioners at double the amount chargeable on the Pennsylvania Canals.

Very respectfully, &c.

S. Jones, Superintendent.

*Colonel Macerone's Steam Carriage.*—Thursday, the Steam Carriage for which Colonel Macerone and Mr. Squire have obtained a patent, and which has been running from Oxford street to Edgware for the last fortnight, made a trip to Uxbridge, and, notwithstanding the extremely disadvantageous state of the road, owing at once to the long-continued rains, and to the quantity of loose gravel which is at present being laid down upon it, the trial afforded another unequivocal proof of the success which has attended the efforts of the patentees in bringing to a comparative degree of perfection the construction of locomotive carriages. The road, which, even in fine weather, is a very bad one, was, as before mentioned, in the worst possible condition, and yet the journey from the Regent's circus, Oxford street, to Uxbridge, was performed (not taking stoppages into account) in an hour and a quarter. The consumption of time in the stoppages for the purpose of taking in water and fuel was, of course, considerable, but that is a matter that can be easily remedied by the establishment of stations at proper distances, and with suitable apparatus, upon any road on which a carriage of the kind can be started. The first two miles were performed in seven minutes and a half, and the average rate of speed was 12, 14, and sometimes 16 miles an hour. Indeed, it was manifest that in summer, and upon a good road, the coach could go even 20 miles an hour. Up some of the hills, which had been thickly covered with gravel, it went at the rate of eight miles an hour. On his return to town, one of the Oxford stages in full gallop passed it, while taking in water at Kensington. After the lapse of a few minutes the steam carriage followed, came up with the stage, still at full gallop, passed it, and left it "no where" ere it had arrived at the commencement of Oxford street. This carriage, we understand, has already run 2500 miles without being detained on the road for a single minute by any derangement of the machinery, save the breaking of the axle-tree on its return from Windsor in last September—an accident to which every other species of vehicle is equally liable, and against the recurrence of which, in the instance of the steam-carriage, the patentees state they have effectually provided. It is the intention of the patentees, we believe, to continue running the carriage for some days longer to the Uxbridge, when it will be discontinued. They at the same time express their willingness to run the carriage, for the purpose of showing the power of the engine, upon any road in the kingdom.—[English paper.]

Dip and Declination of the Needle in America.—A manufacturer of compasses at Birmingham would feel much obliged to any of our American or other correspondents, who would supply answers to the following queries: What is the dip and declination of the needle in New-York? and the extent of the variation throughout that and the other states of the North American Union?

*On the Location of Railroad Curvatures, being an investigation of the principal formulas required for field operations in laying curves to pass through given points.* By J. S. Van De Graaff. To the Editor of the American Railroad Journal.

Sir,—Having been personally engaged in tracing the various curves for railroad lines, and being frequently under the necessity of making calculations relative to divergent curves and tangents, under a variety of existing circumstances, I was induced to enter into an investigation of certain formulas, embracing the principal cases which usually occur in practice. These formulas, the chief of which I believe to be new, are now offered to you for insertion in your Journal. This is done only with a view to the possibility of adding a small mite to the general stock of information upon that subject; for nothing can be better caculated to produce such an effect than a comparison of the different methods of computation which have been resorted to by different individuals engaged in the solution of such problems. A full investigation of this subject, embracing all the variety of cases which occur in the field, would require too much room in your columns, and I have therefore consulted brevity as much as perspicuity would allow. Very respectfully,

J. S. Van De Graaff.

Art. 1. Any two points being fixed in the general direction of a route, through which it is proposed to lay a line of railroad composed of several curves and tangent lines, the cost of construction is in most cases not the only requisite datum to fix the definite location of the intermediate points,—for there are very few varieties of ground, except in a very broken country, which will not admit of several different lines connecting the same points, all at nearly an equal expense of construction, and all within the same *limits* of curvature. It then becomes an object to make such a selection of right lines and curves, and such a distribution thereof, as will produce, *at a given expense*, the most efficient road.

But no particular rule can be given as a guide for the judicious arrangement of a line; and the general object here proposed is an investigation of such formulas as are required in the field. Let any two rectangular co-ordinate axes be assumed, and take any number of *equal*

straight lines, originating at the origin of the co-ordinate axes, and connected together at their extremities in such a manner, as that, when each point of connection is joined by a straight line to the origin, these latter lines will form, with one of the co-ordinate axes, a series of angles in *arithmetical progression*. It then follows, agreeably to the principles of elementary geometry, that each point of connection of those *equal* straight lines, will be situated in the circumference of a circle, passing through the origin, and touching that co-ordinate axis from which the arithmetical series of angles is counted. And this obviously suggests the common method of tracing a circular arc in the field by means of a chain whose length is each of those *equal* straight lines, and an instrument for measuring the arithmetical series of angles from the tangent line.

In all the formulas which will be deduced in the course of the present inquiry, it must be remembered that all measurements of distance are supposed to be made in chains, or decimal parts of a chain. The chain will therefore be the *unity* of length, and may have any value whatever; but as this will be a constant quantity in the field, it follows that the *curvature* of a line, traced in the manner just described, can only be made variable by different arithmetical series of angles. The *common differences* of these series of angles will therefore be called the *moduli* of curvatures, and will always be denoted by a letter T. That co-ordinate axis which coincides with the tangent line will be designated as the axis of $x$; the other being that of the ordinate $y$; and any curve will be considered given, or found, when the modulus of curvature is given, or found.

2. *Let a given curve be traced from the origin of a system of rectangular co-ordinate axes, agreeably to the preceding article; it is proposed to investigate formulas which will express the values of the co-ordinates of the station at the extremity of the* nth *chain.*

The inclinations of the different chains to the axis of $x$, in succession from the origin, are respectively T, 3T, 5T, &c.; and consequently their projections upon the co-ordinate axes are obviously cos. T, cos. 3T, cos. 5T, &c., and sin. T, sin. 3T, sin. 5T, &c. respectively. Hence, by taking the sums of those projections, the following equations will result:

$$x = \text{cos. T} + \text{cos. 3T} + \text{cos. 5T} +$$
$$\text{\&c. . . . . cos. } \{\text{T} \cdot \overline{2n-1}\}$$
$$y = \text{sin. T.} + \text{sin. 3T} + \text{sin. 5T} +$$
$$\text{\&c. . . . . sin. } \{\text{T} \cdot \overline{2n-1}\}$$

The last term in each of these two series will obviously be the $n$th term; and the sum of $n$ terms of each series being taken, agreeably to the known principles of analytical trigonometry, the following formulas will be the result:

$$x = \frac{\text{sin. } 2n\text{T}}{2 \text{ sin. T}}$$
$$y = \frac{1 - \text{cos. } 2n\text{T}}{2 \text{ sin. T}}.$$

These are the expressions required; and they have that form which is most convenient for computation from a table of natural sines and cosines.

3. *To find the radius of curvature.*

It is sufficiently evident, that when $n$ is made *variable*, the maximum value of $x$ will be the radius of the described circle; but when $x$ is a maximum, it follows that sin. $2n$T will also be a maximum when T remains constant, as will readily appear from the expressions obtained in the last article. Now, the maximum value of sin. $2n$T is unity, and consequently denoting the radius of the described circle by R, the result is,

$$\text{R} = \frac{1}{2 \text{ sin. T}}.$$

4. *Take two rectangular co-ordinate axes, having their origin at a given station in a tangent line, from which a certain required curve is to be laid, passing through a point designated by the co-ordinates* x, y; *the given tangent line coinciding with the axis of* x. *Parallel respectively to each of the coordinate axes, let any number of rectangular lines be traced from the origin, and terminating in the point designated for the required curve to meet; these rectangular lines being selected in any convenient manner to pass any obstacle which may happen to occur. Let the algebraic sums of each of these rectangular lines be taken, agreeably to the axis to which they are respectively parallel. These sums will obviously give the values of the co-ordinates* x, y; *and from thence it is proposed to determine a formula expressing the value of the modulus of curvature of the required curve.*

Let each of the two formulas obtained in art. 2 be squared; and let the second of the two formulas be then divided by the sum of the squares. The following expression will be the immediate result:

$$\text{Sin. T} = \frac{y}{x^2 + y^2}.$$

And thus the modulus of curvature of the required curve becomes known. This is one of the most important formulas used in the field; for it can be applied under any circumstances, when the designated point is not visible from the origin. If that point can be seen from the origin, the curve sought is usually obtained in a more simple manner.

5. *Suppose two curves to be laid upon the same tangent line, and take* b *to denote the distance between their origins. Let one of those curves have a given modulus of curvature denoted by* T, *and let it pass through a given point at the extremity of the* nth *chain. It is then proposed to find the modulus of curvature of the other curve such that it may also pass through the same given point.*

The co-ordinates of the given point, taken with reference to the origin of the required curve, will obviously be $x \pm b$, and $y$. Hence taking T′ to denote the required modulus, it follows from the last article that, sin. $\text{T}' = \frac{y}{\overline{x \pm b}^2 + y^2}$. Now substituting in this expression, for $x$, $y$, their values obtained in art. 2, and the necessary reductions being made, the following formula will be the result:

$$\text{Sin. T}' = \frac{1 - \text{cos. } 2n\text{T}}{\frac{1 - \text{cos. } 2n\text{T}}{\text{sin. T}} \pm 2b \text{ sin. } 2n\text{T} + 2b^2 . \text{sin. T}}$$

This theorem will be found to be quite convenient in the field to answer several different purposes, when the curves are too long to be within the limits of the more simple approximative methods. With regard to the double sign, it must be observed, that the *negative* value obtains, when the origin of the curve sought is in *advance* of the origin of the given curve; and the positive value must be taken in the contrary case.

6. If the point designated for the required curve to meet does not coincide with the extremity of the $n$th chain of the given curve, as, in art. 5 it is supposed, but varies a small distance to the right or left; yet, *if the curves are long*, the best method will always be to compute the value of T′, as though the required curve were intended to pass through the point considered in that article; and then the requisite *small variation* in the computed value of T′, to meet the case proposed, may be subsequently calculated by very simple approximative methods.

7. *Suppose two given curves to be laid upon the same tangent line, and let* b *denote the distance between their origins. Take* T *and* T′ *to represent the given moduli of curvatures; and* n *and* m *the number of chains contained in each curve respectively. It is proposed to determine the distance between the extreme stations of those two curves, and the inclination of the two tangents at those two extremities.*

I will here take T to denote the modulus of curvature of that curve which is most in advance upon the tangent line, with respect to the directions in which the curves are laid from their origins. Let $x$, $y$, and $x'$, $y'$, be the respective co-ordinates of the two extreme stations, each originating at the origin of its respective curve. The difference of co-ordinates, when referred to any common origin on the tangent line, will then be $x + b - x'$, and $y - y'$. Hence, taking $w$ to denote the distance sought, the common principle of analytical geometry gives the following expression:

$$w = \{\overline{x + b - x'}^2 + \overline{y - y'}^2\}^{\frac{1}{2}}$$

And from this equation the required distance becomes known; for, by art. 2,

$$x = \frac{\text{sin. } 2n\text{T}}{2 \text{ sin. T}} \qquad x' = \frac{\text{sin. } 2m\text{T}'}{2 \text{ sin. T}'}$$
$$y = \frac{1 - \text{cos. } 2n\text{T}}{2 \text{ sin. T}} \qquad y' = \frac{1 - \text{cos. } 2m\text{T}'}{2 \text{ sin. T}'}$$

The inclination of each tangent to the common tangent at the origins is $2n$T and $2m$T′ respectively, and $2n$T—$2m$T′ will consequently express the required inclination of the two tangents to each other. These two tangents will converge when $2m$T′ is less than $2n$T, and the determination of their point of intersection will be easily effected by the preceding principles.

8. When the two moduli of curvatures T and T′ are equal, the problem considered in the last article becomes much more simple. For the value of $w$ being developed, and the values of $x$, $y$, and $x'$, $y'$, substituted for them, and the necessary reductions being made agreeably to the known principles of analytical trigonometry, the following formula is the result:

$$w = \left\{ \frac{1 - \text{cos. } \{2n\text{T} - 2m\text{T}\}}{1 - \text{cos. } 2\text{T}} + b \times \frac{\text{sin. } 2n\text{T} - \text{sin. } 2m\text{T}}{\text{sin. T}} + b^2 \right\}^{\frac{1}{2}}$$

This expression will be useful for a variety of purposes in the field.

9. The formulas which have been investigated in the 8 preceding articles are all *rigorously accurate*; and when long curves are under consideration, which embrace portions of circumferences containing more than 20° or 30°, these formulas will find their application; for in such cases, none of the *usual methods* of approximation are applicable.

The above very brief view of this subject will be only sufficient to illustrate the general fact, that all the necessary formulas are easily made to flow from the two principal formulas given in art. 2. Very useful approximative rules may also be easily derived from those already given; but I cannot continue this inquiry. The subject may perhaps be resumed in some future number of this Journal.

VAN DE GRAAFF.

Lexington, Ky., February, 1834.

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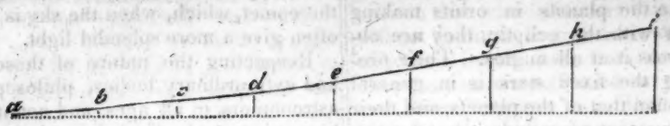
*The Undulating Railway.* [From the London Mechanics' Magazine.]

SIR,—To prevent the possibility of any further misunderstanding in reference to the experiments recently made on the Liverpool and Manchester railway, I have this morning called upon Mr. Booth, and have compared with his statement thereof the following particulars of the rise of the Sutton inclined plane, from its base to a higher point of elevation than any which was attained in our experiments. To render this explanation more clear, on which reliance may be placed, I have accompanied it by a diagram, wherein is denoted the points from which the ascents and descents, during the experiments, were measured.

I am extremely sorry that these particulars have not before been published, as the want of them has evidently produced inconvenience to some of your correspondents, which, had it occurred to me, I ought not to have permitted.




| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| From *a* to *b* | the distance is | 88 yards | —rise | 1 in 754 | —total | elevation | .116 yards | |
| *b* to *c* | " | 88 " | —rise | 1 in 122 | — | " | .721 | " |
| *c* to *d* | " | 88 " | —rise | 1 in 105 | — | " | .838 | " |
| *d* to *e* | " | 88 " | —rise | 1 in 97 | — | " | .907 | " |
| *e* to *f* | " | 88 " | —rise | 1 in 94 | — | " | .936 | " |
| *f* to *g* | " | 88 " | —rise | 1 in 92 | — | " | .956 | " |
| *g* to *h* | " | 88 " | —rise | 1 in 89 | — | " | .988 | " |
| *h* to *i* | " | 88 " | —rise | 1 in 89 | — | " | .988 | " |
| | | 704 yards. | | | Total rise, | | 6.450 yards. | |

The ascent of the Sutton inclined plane may be said (see diagram) to commence at the point *a*; although for a distance of 2½ miles before arriving at that point there is a trifling ascent of about 1 in 2,640—viz. from the Sankey viaduct to the foot of the plane.

Now, the series of experiments first published (see No. 531), and which were tried with the Rocket engine, were made from what was considered the foot of the plane, and which in the diagram is marked letter *b*.

The results of those experiments evidently proved to me that the inclination of that part of *the plane* on which they were tried was not, as generally supposed, 1 in 96. I perfectly recollect Mr. Sanderson alluding to some supposed error, though why the allusion was "*not palatable to me*" is a perfect mystery. It was not, however, until after I sent you the particulars of the experiments, and my return to Douglas, that I had an opportunity of making such calculations as led me to call a second time on Mr. Booth, viz. *before* the trial of the second series of experiments, and explain to him the discrepancy which appeared. For instance, see page 21, experiment 6:—The Rocket engine and a load of 35 tons ascended by *momentum* 134 yards, the velocity at the foot of the plane being 10 miles per hour, which ascent was equal to 4.1875 feet perpendicular elevation. Now, 10 miles per hour is 14.672 feet per second, and supposing friction out of the question, a body having gained a momentum of 14.672 feet per second, by gravity, would only ascend 3.36355 feet. Thus it was evident to me that 1 in 96 was not the proper inclination of that part of the plane. Previously, however, to the experiments afterwards detailed, the levels were taken afresh by the Messrs. Dixon,* and in the experiments tried with the Liver and load on the 16th (see No. 534,) the ascents were measured from that part of the plane marked × in the diagram, at which point there is a cottage on the railway. On the Sunday following it was agreed by the engineers present that the place of starting should be again changed, and the experiments with the double load were all made from that part of the plane from which the Rocket had ascended, viz. from *b*. It will naturally occur to your readers—if Mr. Badnall were acquainted with all these particulars, why did he not lay them before the public? The fact is, that I considered the result of the experiments made with the Pluto and Firefly, with the *double* load, such as to render all explanation unnecessary with regard to the previous trials, and especially *as I stated at page* 71, that the inclination upon which those latter experiments were tried was about 1 in 99, which will be found to be the average. Moreover, I did not at the time consider a knowledge of the exact inclination of the plane at all necessary to a clear comprehension of the nature and results of the experiments, inasmuch as *all I wished to prove was*, that *whether velocity* was generated by one or more engines at the foot of ascent, by which velocity (either with or without the continued assistance of one engine) a given elevation was surmounted, *a greater velocity could be generated by descending the same distance*, evidently proving, beyond all rational doubt, the correctness and value of the principle.

The discrepancy alluded to by "Kinclaven" will be explained, I trust, satisfactorily to him, by referring to the statement of the experiment to which he alludes. In that instance the word *momentum* is not introduced; on the contrary, the whole power of the Liver engine was employed throughout the *whole ascent*. Had this not been the case, there evidently must have been some great error. I need not say that I shall be most happy, not only to give every further information in my power, but if any of my opponents will propose any further practical test, upon the result of which they will cast the merits of the question, it shall be, if possible, immediately and most impartially tried.

As a proof of the impartiality with which I have recorded the experiments already tried, I refer to all the engineers present, whether the *steam* of the Pluto (see last experiment) was not shut off 155 yards before she arrived at the starting post, which made a very considerable difference in the rise by momentum. Seeing, however, that I had *proved* enough, I neither complained at the time, nor have I hitherto published my complaint. The error arose from the two conductors of the engines shutting off the steam of both engines when the flag dropped for the first engine to shut off on passing the mark, letter *b*.

May I again ask if Mr. Cheverton and "S Y." will be satisfied that there is an advantage if a given locomotive engine will move, at a given velocity, *double* the load from summit to summit which she is capable of moving on the level at the same velocity? If so, will they, if not satisfied with the impartial judgment of our northern engineers, attend on an appointed day, of which they shall have due notice, and witness the experiments themselves? If they refuse to attend, and if they disbelieve the results of the experiments already tried, it is needless to make a single further comment on their opposition. On the other hand, if they do attend, and if they do witness a decided proof that a load, which *will not move on a level*, will move from summit to summit of an undulation at a *great velocity*, what becomes of the "ASSUREDLY NOT" of the *Champion*—and why is it necessary that "S. Y." should give such friendly advice to Mr. Ham, and to the subscribers of the *great western railway?* I am, however, happy in believing, that a full and impartial trial of the undulating principle will *soon* be made on rather an extensive scale; and I hope "S.Y." will state his *practical objections*, and that the *Champion's rod* may be most freely *exercised* before such *trial takes place*. As to the sickness which these gentlemen complain of, I am sorry I can administer no better restorative than my regret.

I am, sir, with great respect,

RICHARD BADNALL.

Manchester, November 28, 1833.

P. S.—I observe that "S. Y." makes some allusion to "*The Editor of the Manchester Guardian.*" Probably he is not aware that Mr. Garnett, the editor, is an opponent of mine, and *one* for whose mechanical attainments I have a very high opinion.

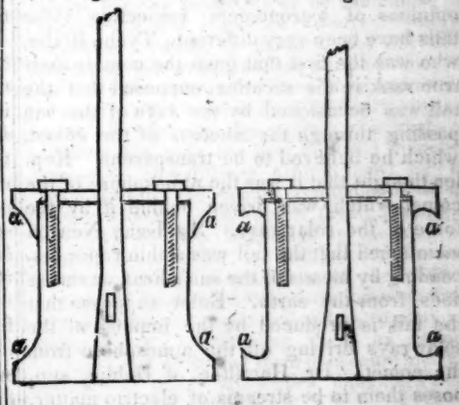
*Improved Method of Packing Pistons.* By T. B. S. To the Editor of the Mechanics' Magazine.

Knowing that many of your readers take a lively interest in whatever contributes to the perfection of the means by which the mighty energies of steam are directed in channels of usefulness, I submit a brief description of an improvement in a minute though an important part of the steam engine. Many expedients have been devised to avoid the use of hemp for the packing of the piston; various metallic substances have been substituted, and numberless other materials long since condemned after repeated trials.

While the piston as adopted by the ingenious Mr. Watt continues in almost universal use, and until a cheap and more enduring piston is discovered, it will doubtless continue to be the favorite plan. In one of its features, however, I consider it susceptible of improvement.

Heretofore engineers have considered it important to form the projecting parts of the piston and follower so as to crowd the hemp outward against the cylinder, as the follower is screwed down to its place. The sketch, fig. 1, is about the form usually given to the

Fig. 1. Fig. 2.




metallic part of the piston, and shows the form of the recess for the reception of the packing. It is apparent that the obtuseness of the corners at *a*, *a*, *a*, *a*, are well calculated to avoid the packing as it becomes chafed by friction against the cylinder, while the general shape of the recess greatly conduces to an excessive friction near those angles. Fig. 2 represents the improved form of the piston as I have applied it in several instances, and with success. The acuteness of the edges, *a*, *a*, *a*, *a*, is calculated to preserve the packing from chafing, to hold it in a body to its place, and will retain it, even though worn to fragments, or otherwise reduced, as it may be liable from a variety of causes. Most of the engines in use have pistons of the former description, and the experiment may be tried with a trifling expense, simply by turning a cavity as near to the form of that in fig. 2 as the substance of the piston will allow.

In the hope that some may derive a benefit from the suggestions, as well as to contribute a mite to the interest of your valuable periodical, I offer them.

I am, yours, &c. T. B. S.

New-York, Jan. 24, 1834.

* I had also an opportunity of comparing, this morning, my notes on the rise of the inclined plane with Mr. Dixon's, sen., from whom I had originally been favored with them.

OF COMETS.

Of all celestial bodies, comets have given rise to the greatest number of speculations. In the ages of ignorance and superstition, they were believed to be the harbingers of divine vengeance, and to portend great political and physical convulsions. The most ancient opinion respecting their nature was, that they were enormous meteors formed in the earth's atmosphere. Yet many of the ancients entertained opinions respecting them agreeing with some parts of the *modern* hypothesis respecting these bodies; for they believed that they were so far of the nature of planets, that they had their periodical times of appearing, and that when they were out of sight they were carried aloft to an immense distance from the earth, but again became visible when they descended into the lower regions of the air, when they were nearer to us. Modern astronomers are now generally agreed, that they have no light of their own, and appear luminous only by the light of the sun. They have no visible disc, and shine with a pale whitish light, accompanied with long transparent trains, or tails, proceeding from that side which is turned away from the sun. When a comet is viewed through a good telescope, it appears like a mass of vapors surrounding a dark nucleus of different degrees of opacity in different comets. As these bodies approach the sun their light becomes more brilliant, and after they reach their perihelion, often exceed any of the planets in lustre. Their tails are also observed to increase, both in length and brightness, as they approach the sun. The opinions of astronomers respecting these tails have been very different. Tycho Brahe, who was the first that gave the comets their true rank in the creation, supposed that the tail was occasioned by the rays of the sun passing through the nucleus of the comet, which he believed to be transparent. Kepler thought that it was the atmosphere of the comet which was driven behind it by the force of the solar rays. Sir Isaac Newton maintained that the tail was a thin vapor, ascending by means of the sun's heat, as smoke does from the earth. Euler supposes that the tail is produced by the impulse of the solar rays driving off the atmosphere from the comet. Dr Hamilton, of Dublin, supposes them to be streams of electric matter.

In any of these opinions there is little to entitle it to preference above the others; and till multiplied observations shall have added to the imperfect knowledge which we at present possess of these bodies, it is perhaps better not to give a decided preference to any of them.

From a number of observations made by Sir Isaac Newton on the comet that appeared in the year 1680, he was enabled to discover the true motion of these bodies.

Dr. Halley, following the theory of Newton, set himself to collect all the observations which had been made on comets, and calculated the elements of 24 of them. By computations founded on these elements, he concluded that the comet of 1682 was the same that had appeared in the years 1456, 1531, and 1607; that it had a period of 75 or 76 years; and he ventured to predict, that it would appear again about the year 1758, which it actually did; therefore it may be expected to appear again in the year 1835.

When a comet makes its appearance, it is only for a very short period, seldom exceeding a few months, and sometimes only a few weeks. Instead of moving from *west* to *east*, like the planets in orbits making small angles with the ecliptic, they are observed to cross it at all angles. Their progress among the fixed stars is in general more rapid than that of the planets, and their change of apparent magnitude is much more remarkable. When a comet retires from the sun, its tail decreases and nearly resumes its first appearance. Those comets which never approach very near the sun have nothing but a coma or nebulosity round them during the whole time of their continuance in view.

The tail of a comet is always transparent, for the stars are often distinctly visible through it, and it has even been said, that on some occasions they have been seen through the nucleus or head. The length and form of the tail are very different. Sometimes it extends only a few degrees, at others it extends more than 90 degrees. In the great comet that appeared in the year 1680, the tail subtended an angle of 70°, and the tail of the one which appeared in 1618, an angle of 104°. The tail sometimes consists of diverging streams of light: that of the comet which appeared in the year 1744 consisted of six, all proceeding from the head, and all a little bent in the same direction. The tail of the beautiful comet which appeared in 1811 was composed of two diverging beams of faint light, slightly colored, which made an angle of 15° to 20°, and sometimes much more. Both of them were a little bent outward, and the space between them was comparatively obscure.

The apparent difference in the length and lustre of the tail of comets has given rise to a popular division of these singular bodies into three kinds, namely, *bearded*, *tailed*, and *hairy* comets; but this division rather relates to the several circumstances of the *same* comet, than to the phenomena of different ones. Thus when the comet is *east* of the sun, and moves *from* him, it is said to be *bearded*, because the light precedes it in the manner of a beard; when the comet is *west* of the sun, and sets after him, it is said to be *tailed*, because the train of light follows it in the manner of a tail; and when the sun and comet are diametrically opposite, the earth being between them, the train or tail is all hid behind the body of the comet, except the extremities, which being broader than the body of the comet, appear to surround it like a border of *hair*, and on this account it is called hairy. But there have been several comets observed, whose discs were as clear, round, and well defined, as that of Jupiter, without either tail, beard, or coma.

The magnitude of comets has been observed to be very different; many of them without their *coma* have appeared no larger than stars of the first magnitude; but some authors have given us accounts of others which appeared much greater: such was the one that appeared in the time of the emperor Nero, which, as Seneca relates, was not inferior, in apparent magnitude, to the sun himself. The comet which Hevelius observed in the year 1652 did not seem to be less than the moon, though it was deficient in splendor, for it had a pale, dim light, and appeared with a dismal aspect. Most comets have dense and dark atmospheres surrounding their bodies, which weaken the sun's rays that fall upon them; but within these appears the nucleus or solid body of the comet, which, when the sky is clear, will often give a more splendid light.

Respecting the nature of these singular and extraordinary bodies, philosophers and astronomers in all ages and countries have been very much divided in their opinions. The vulgar have, however, invariably considered them as *evil omens*, and forerunners of war, pestilence, famine, &c.; and to adopt the language of an old poet,

"The blazing star was viewed—
Threat'ning the world with famine, plague, and war;
To princes death; to kingdoms many crosses;
To all estates inevitable losses;
To herdsmen rot; to ploughmen hapless seasons;
To sailors storms; to cities civil treasons."

The Chaldeans, who were eminent for their astronomical researches, were of opinion that comets were lasting bodies, which had stated revolutions as well as the planets, but in orbits considerably more extensive, on which account they are only visible while near the earth, but disappear again when they ascend into the higher regions. Pythagoras taught that comets were wandering stars, disappearing in the superior parts of their orbits, and becoming visible only in the lower parts of them. Some of the ancient philosophers supposed they were nothing else but a reflection of the beams from the sun or moon, and generated as a rainbow; others supposed they arose from vapors and exhalations. The illustrious Aristotle was of opinion they were meteors. Modern philosophers have been equally perplexed as their predecessors in accounting for the nature of these magnificent celestial appearances.

The eccentric but learned Paracelsus gravely affirmed that they were formed and composed by angels and spirits, to foretel some good or bad events. Kepler, the celebrated astronomer, asserted that comets were monsters, and generated in the celestial spaces by an animal faculty! The sentiments of Bodin, a learned French writer of the 16th century, were yet more absurd; for he maintained that comets are spirits which have lived upon the earth innumerable ages, and being at last arrived on the confines of death, celebrate their last triumph, or are called to the firmament like shining stars!

James Bernoulli, a celebrated Swiss philosopher, formed a rational conjecture relative to comets, in viewing them as the satellites of some very distant planets invisible on the earth on account of its distance, as were also the satellites, unless when in a certain part of their course. Tycho Brahe, the illustrious but unfortunate philosopher of Denmark, supported a true hypothesis on this subject. He averred that a comet had no sensible diurnal parallax, and therefore was not only far above the regions of our atmosphere, but much higher than the moon; that few have come so near the earth as to have any diurnal parallax, yet all comets have an annual parallax; the revolution of the earth in its orbit causes their apparent motion to be very different from what it would be if viewed from the sun, which demonstrates that they are much nearer than the fixed stars, which have no such parallax.

Descartes advanced another opinion, which is, that comets are only stars that were formerly fixed like the rest, but becoming gradually covered with *maculæ* or spots, and at length wholly deprived of their light, cannot

keep their places, but are carried off by the vortices* of the circumjacent stars; and in proportion to the magnitude and solidity, moved in such a manner as to be brought nearer to the orb of Saturn; and thus coming within reach of the sun's light, are rendered visible.

The number of comets belonging to the solar system is said not to be less than 450; but the periods of not more than three of these are known. The velocity of these bodies, and their distance from the sun, when in the remotest part of their orbits, exceed all human comprehension. Sir Isaac Newton calculated the velocity of the comet of 1680, and found it to be 880,000 miles per hour, and its aphelion distance not less than 11,200,000,000 miles.

Respecting the use of these bodies, many conjectures have been formed. Mr. Whiston thought it probable that they were appointed by the Almighty as places of punishment for sinners after *death*, who would be alternately tormented with the most insupportable *heat* when nearest the sun, and in the opposite point with the greatest possible *cold*.

Sir Isaac Newton, amongst other purposes which he thinks they may be designed to serve, adds, "that for the conservation of the water and moisture of the planets, comets seem absolutely requisite, from whose condensed vapors and exhalations all the moisture which is spent in vegetation, and turned into dry earth, &c. may be supplied and recruited, for all vegetables grow and increase wholly from fluids; and again, as to their greatest part, by putrefaction into earth. Hence the quantity of dry earth must continually increase, and the moisture decrease, and be quite evaporated, if it did not receive a continual supply from *some* part or other of the universe;"—and I suspect," adds this philosopher, "that the *spirit*, which makes the finest, subtilest and best part of our air, and which is absolutely requisite for the life and being of all things, comes from the comets."

* Descartes supposed that every thing in the universe was formed from very minute bodies called *atoms*, which had been floating in open space. To each atom he attributed a motion on its axis; and he also maintained, that there was a general motion of the whole universe round like a *vortex*, or whirlpool. In the centre of this vortex was the sun, with all the planets circulating round him at different distances; and that each star was also the centre of a general vortex round which its planets turned. Besides these general vortices, each planet had a vortex of its own, by which its satellites (if it had any) were whirled round, and any other body that came within its reach.

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FRIENDSHIP.—"When fortune smiles, and life is prosperous and fair, then it is that the nominal and true friend may seem alike sincere." Then it is that small and great, rich and poor, bond and free, bow at your shrine and prostrate themselves as it were at your feet. But when unfortunately the dark clouds of sorrow and disappointment gather thick around you, and you find yourself beset with troubles, losses, crosses, and disappointments, on every side, then you are ready to exclaim, "Fortune can create friends, but adversity alone can try them." Your friends of fortune will desert you. They will laugh at your misfortunes, and heap upon you shame and disgrace. They will sink you, if possible, lower, in point of honor and reputation, and in all your attempts to rise, cross and blight you at every turn.

But not so with the true friend. Though all your earthly prospects are cut off, he will not desert you, but if possible administer to your relief. Let us, therefore, cultivate and cherish that friendship, and that alone which will not diminish, though sorrows oppress and afflictions invade us: that too which will cheer and animate us amid our darkest hours and shine brightest in affliction's night.—[Monthly Repository.]

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### MANKIND MUTUALLY DEPENDANT.

Not only the correct and excellent sentiments, and the accomplished expression of the following communication, but the source from which it emanated, give it a value for our p per. It is one among numerous compositions furnished by the Ladies' Composition Class of the Boston Wesleyan Lyceum. This piece, like many others which have been prepared by this class, does credit to the intellect and still more to the heart of the author The sentiment and spirit manifested are those of christian kindness; and if believed and practised by the whole human family, would light up our depraved and forlorn world with the brightness of pure felicity. Who is not ready to try the experiment?

The cold-hearted stoic may boastingly accede to the sentiment, that 'man is sufficient for himself;' but the philanthropist rejoices in the beautiful system of mutual dependance which unites him so closely with the whole human family. He views with pleasure the facilities which the genius of men has supplied for communication with other lands; for contributing to the necessities, convenience and ease of each other, by exchanging the products of different climes; he considers all men as the children of one Parent, improving the advantages with which they are favored, for the benefit of themselves and of their brethren.

Not only do these pleasurable feelings arise in the breast of him whose heart is deeply imbued with love for the whole human race, but a little reflection will excite them in the mind of one whose views are more selfish and contracted; and constrain him to acknowledge the wisdom of a system for the division of labor, and for the promotion of friendly intercourse, which mankind, as it were by mutual consent, have so universally adopted.

Every vocation in life depends on many others for its support. The agriculturists of New-England, said to be the most independent class of people, may be adduced as examples in favor of this assertion; the toils of the blacksmith, the carpenter, &c. are all put in requisition to enable them to cultivate the soil to advantage.

The rich are dependant on the poorer classes, and the poorer classes on the wealthy: without the former, commerce and manufactures would languish—and deprived of the latter, the fatigues of manual labor would be added to those mental vexations from which the affluent are seldom exempt.

The young look to their superiors in years for counsel and instruction, and the aged to the vigor of youth and manhood for support.

A mutual dependance exists between the inhabitants of one clime and those of another; the wealth of one nation is comprised in its mines of silver and gold, that of another in the products of its soil. Those who depend on the latter may be considered as peculiarly favored; for where the former exist, those arts which constitute the happiness and prosperity of a people are almost invariably neglected. From this circumstance, indolent habits, both of body and mind, are induced, and these in their turn generate many vices.

To the conquests of the Spanish in America, may be attributed the low state of morals, literature, and science, which prevails among them; for finding that they had acquired, with an extensive territory, a resource for the supply of all their wants, the natural advantages of their natal land were disregarded.

The advantages occurring from this system of mutual dependance are many; the division of labor, or the devotion of every man's talent to some particular trade or profession, is an economy, not only of time, but of health and of money.

Should one man engage in the pursuits which are now apportioned among many, much time would be lost in the acquisition of knowledge in various branches; his health would be impaired from the attention bestowed on them; his gain would not be in ratio to the expenses incurred; and no opportunity would be afforded of attaining to perfection in any.

From the consideration that we are continually reciprocating favors with our fellow beings, and that there are none so humble as not to be able to render us assistance in one way or another, we should be excited to kindness and humility; under the influence of so beneficent a system, the asperities of life should lose their keenness, and all the social feelings of our nature be expanded. M. O.

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MECHANICS' WIVES.—Speaking of the middle ranks of life, a good writer observes:

"There we behold woman in all her glory: not a doll to carry silks and jewels, not a poppet to be flattered by profane adoration, reverenced to-day, discarded to-morrow; always jostled out of the place which nature and society would assign her, by sensuality or by contempt; admired, but not respected; desired, but not esteemed; ruling by passion, not affection; imparting her weakness, not her constancy, to the sex she would exalt; the source and mirror of vanity. We see her as a wife partaking the cares and cheering the anxiety of a husband, dividing his toils by her domestic diligence, spreading cheerfulness around her; for his sake sharing the decent refinements of the world, without being vain of them; placing all her joys and her happiness in the man she loves. As a mother, we find her the affectionate, the ardent instructress of the children whom she has tended from their infancy; training them up to thought and virtue, to piety and benevolence; addressing them as rational beings; and preparing them to become men and women in turn. Mechanics' daughters make the best wives in the world."

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RIDING.—On which side of the lady, on horseback, should the gentleman ride?

The translator of the Principles of the Art of Modern Horsemanship says: "When a gentleman accompanies a lady on horseback, he should take the left side of her horse. The custom of taking the right side is derived from the English mode of riding. The law of England directs the left hand to be taken; the gentleman therefore takes the right, to protect the lady from vehicles, &c. which pass on her left. Here the law directs the right hand of the road to be taken, consequently the gentleman should take the left side of the lady's horse. It seems to be best adapted to afford efficient assistance, whatever may occur. The right hand of the gentleman is perfectly free, and may be used either to stop the horse or rescue the lady from danger. He can on this side aid her in disentangling her dress, disengaging her foot from the stirrup, adjusting her reins, and lifting her off her seat, without exposing her to the accidents which might occur to him if he attempted to give her assistance from the other side. It is not so easy to afford assistance to the lady with the left hand, nor is it so easy for the rider to command his own horse with the right hand."

THE CHASSEUR ANTS OF TRINIDAD.—One morning my attention was arrested at Laurel Hill by an unusual number of black birds, whose appearance was foreign to me; they were smaller but not unlike an English crow, and were perched on a calibash tree near the kitchen. I asked the house negress, who at that moment came up from the garden, what could be the cause of the appearance of those black birds? She said, "Misses, dem a sign of the blessing of God; dey are not the blessing, but only de sign, as we say, of God's blessing. Misses, you will see afore noon-time how the ants will come and clear the houses." At this moment I was called to breakfast, and thinking it was some superstitious idea of hers, I paid no further attention to it.

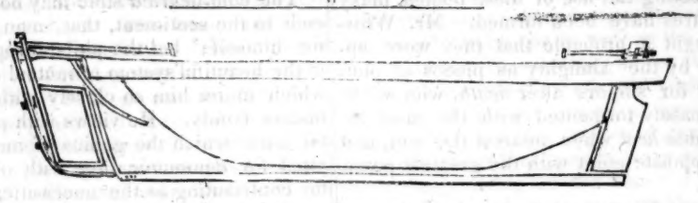
In about two hours after this, I observed an uncommon number of *chasseur ants* crawling about the floor of the room: my children were annoyed by them, and seated themselves on a table, where their legs did not communicate with the floor. The ants did not crawl upon my person, but I was now surrounded by them. Shortly after this the walls of the room became covered by them; and next they began to take possession of the tables and chairs. I now thought it necessary to take refuge in an adjoining room, separated only by a few ascending steps from the one we occupied, and this was not accomplished without great care and generalship, for had we trodden upon one, we should have been summarily punished. There were several ants on the steps of the stair, but they were not nearly so numerous as in the room we had left; but the upper room presented a singular spectacle, for not only were the floor and the walls covered like the other room, but the roof was covered also.

The open rafters of a West India house at all times afford shelter to a numerous tribe of insects, more particularly the cockroach, but now their destruction was inevitable. The chasseur ants, as if trained for battle, ascended in regular thick files, to the rafters, and threw down the cockroaches to their comrades on the floor, who as regularly marched off with the dead bodies of cockroaches, dragging them away by their united efforts with amazing rapidity. Either the cockroaches were stung to death on the rafters, or else the fall killed them. The ants never stopped to devour their prey, but conveyed it to their storehouses.

The windward windows of the room were of glass, and a battle now ensued between the ants and the *jack-spaniards* on the panes of glass. The jack-spaniards may be called the wasp of the West Indies; it is twice as large as the British wasp, and its sting is in proportion more painful. It builds its nest in trees and old houses, and sometimes in the rafters of a room. These jack-spaniards were not quite such easy prey as the cockroaches had been, for they used their wings, which not one cockroach had attempted to do. Two jack-spaniards, hotly pursued on the window, alighted on the dress of one of my children. I entreated her to sit still, and remain quiet. In an inconceivably short space of time, a party of ants crawled upon her frock, surrounded and covered the two jack-spaniards, and crawled down again to the floor, dragging off their prey, and doing the child no harm. From this room we went to the adjoining bedchamber and dressing-room, and found them equally in possession of the chasseurs. I opened a large military chest full of linens, which had been much infested; for I was determined to take every advantage of such able hunters. I found the ants already in possession of the inside: I suppose they must have got in at some opening at the hinges. I pulled out the linens on the floor, and with them hundreds of cockroaches, not one of which escaped.

We now left the house and went to the chambers built at a little distance, but these were also in the same state. I next proceeded to open a store-room at the end of the other house for a place of retreat, but to get the key I had to return to the under room, where the battle was now more hot than ever. The ants had commenced an attack on the *rats* and *mice*, which, strange as it may appear, were no match for their apparently insignificant foes. They surrounded them as they had the insect tribe, covered them over, and dragged them off with a celerity and union of strength that no one who has not watched such a scene can comprehend. I did not see one rat or mouse escape; and I am sure I saw a score carried off during a very short period. We next tried the kitchen, for the store-room and boys' pantry were already occupied, but the kitchen was equally the scene of battle between rats, mice, and cockroaches, and ants killing them. A huckster negro came up selling cakes, and seeing the uproar, and the family and servants standing out in the sun, he said, "Oh, Misses, you've got the blessing of God to-day, and a great blessing it is to get such a cleaning."

I think it was about ten when I first observed the ants; about twelve the battle was formidable; soon after one the great strife began between the rats and the mice; and in about three the houses were cleared. In a quarter of an hour more the ants began to decamp, and soon not one was to be seen within doors. But the grass around the house was full of them; and they seemed now feeding on the remnants of their prey, which had been left on the road to their nests; and so the feasting continued till about four o'clock, when the black birds, who had never been long absent from the *calibash* and *pois doux* trees in the neighborhood, darted down among them, and destroyed by millions those who were too sluggish to make good their retreat. By five o'clock the whole was over: before sundown, the negro houses were all cleared in the same way; and they told me that they had seen the black birds hovering about the almond trees close to the negro houses as early as seven in the morning. I never saw the black birds before or since, and the negroes assured me that they were never seen but at such times.—[Mrs. Carmichael on the West Indies.]



*A Bow Rudder.* By W. ALDERSEY. [From the United Service Journal.]

The following plan is proposed for fixing and working a rudder at the bow of a vessel, to act in unison with the rudder at the stern, as calculated to embrace all the advantages proposed by that experienced and highly respectable officer in the East India Company's service, Capt. William Manning, as stated in p. 541 of the United Service Journal for December, 1831; and which, I think, will also be found to meet the objections of W. J. T. of Cambridge, page 260, in the number for October, 1832.

The plan consists in fixing an additional stem, made of iron, of sufficient strength, on the present stem of the vessel (already built), and securing the same by strong braces fixed securely on the bow, and hanging the rudder on the additional stem at the bow, precisely in the same way as the rudder at the stern is hung, as shown in the drawing.

The following results may be expected: 1st, The rudder at the stem is intended to act in unison with the rudder at the stern, by which means the same force would be exerted at each end of the vessel, and would unite in effect to bring the vessel round to the wind, and prevent her missing stays; 2d, When before the wind, or nearly so, the rudder on the stem might be allowed to swing, or be fixed, as thought necessary; 3d, When the tiller at the stem is put a little to leeward, and the rudder at the stern is made to act in unison with it, their combined influence would very much tend to keep the vessel to windward; 4th, The rudder at the stem would be an additional security in case of accident to the rudder at the stern, to which it is liable from going over a bar, and from other causes; 5th, The additional rudder at the stem appears particularly suitable for steam vessels, by which means the steersman at the bow would have it in his power to discover, and instantly avoid, every impediment in the ship's course; and would be particularly useful at night, and in foggy and boisterous weather, and in rivers crowded with vessels, both moving and stationary.

In the drawing, the keel is lengthened to the extremity of the foot of the rudder, to show an easy and safe mode of protecting it from accident, when the ship touches the ground at the stern. In building a new vessel, the keel may be carried out, in the first instance, of sufficient length to have the additional stem built in the frame of the vessel to receive the bow rudder; and the tiller may be made in any form, and applied in any way, most convenient.

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POPULAR ERRORS IN MEDICINE—[By an Edinburgh Physician.]—A very common practice in eating such fruit as cherries is to swallow the stones, with the vague notion that these promote digestion. No error can be more fatally absurd. Many cases have occurred where such practices have been the cause of death, and that of a very excruciating nature. One instance is on record of a lady who died in great agony after years of suffering, and the cause was found to be several large balls lodged in the intestines, accumulated around clusters of cherry stones. The husks of gooseberries are often swallowed with the idea that they prevent any bad effects from the fruit. On the contrary, they are the most indigestible substance that can be swallowed, and pass the stomach without any change, although they cause excessive irritation, and not unfrequently inflammation in the bowels.

Many people put great faith in the wholesomeness of eating only of one dish at dinner. They suppose that the mixture of substances prevents easy digestion. They would not eat fish and flesh, fowl and beef, animal food and vegetable. This seems a plausible notion, but daily practice shows its utter absurdity. What dinner sits easier on the stomach than a slice of roast or boiled mutton, and carrots or turnips, and the indispensable potato? What man ever felt the worse of a cut of cod or turbot followed by a beef-steak, or a slice of roast beef and pudding? In short, a variety of wholesome food does not seem incompatible at meals, *if one do not eat too much*—here the error lies.

It is a practice with bathers, after having walked on a hot day to the sea-side, to sit on the cold rocks till they cool before going into the water. This is quite erroneous. Never go into the water if over-fatigued, and after profuse and long-continued perspiration, but always prefer plunging in while warm, strong and vigorous, and even with the first drops of perspiration on your brow. There is no fear

of sudden transitions from heat to cold being fatal. Many nations run from the hot bath and plunge naked into the snow. What is to be feared is sudden cold after exhaustion of the body, and while the animal powers are not sufficient to produce a reaction or recovery of the animal heat.

There is a favorite fancy of rendering infants and farther advanced children hardy and strong by plunging them into cold water. This will certainly not prevent strong infants from growing stronger, but it will, and often does, kill three children out of every five. Infants always thrive best with moderate warmth and a milk-warm bath. The same rule applies to the clothing of infants and children. No child should have so slight clothing as to make it feel the effects of cold—warm materials, loose and wide-made clothing, and exercise, are all indispensable for the health of little ones. But above all things, their heads should be kept cool, and generally uncovered.

Many people so laud early rising as would lead one to suppose that sleep was one of those lazy, sluggish, and bad practices, that the sooner the custom was abolished the better. Sleep is as necessary to man as food, and as some do with one-third of the food that others absolutely require, so five hours' sleep is amply sufficient for one, while another requires seven or eight hours. Some men cannot by any possibility sleep more than four or five hours in the twenty-four; and, therefore, true to the inherent selfishness of human nature, they abuse all who sleep longer. No man should be taunted for sleeping eight hours if he can.

Many people do not eat salt with their food, and the fair sex have a notion that this substance darkens the complexion. Salt seems essential for the health of every human being, more especially in moist climates such as ours. Without salt, the body becomes infected with intestinal worms. The case of a lady is mentioned in a medical journal, who had a natural antipathy to salt, and never used it with her food; the consequence was, she became dreadfully infected with these animals. A punishment existed in Holland, by which criminals were denied the use of salt; the same consequence followed with these wretched beings. We rather think a prejudice exists with some, of giving little or no salt to children. No practice can be more ridiculous.

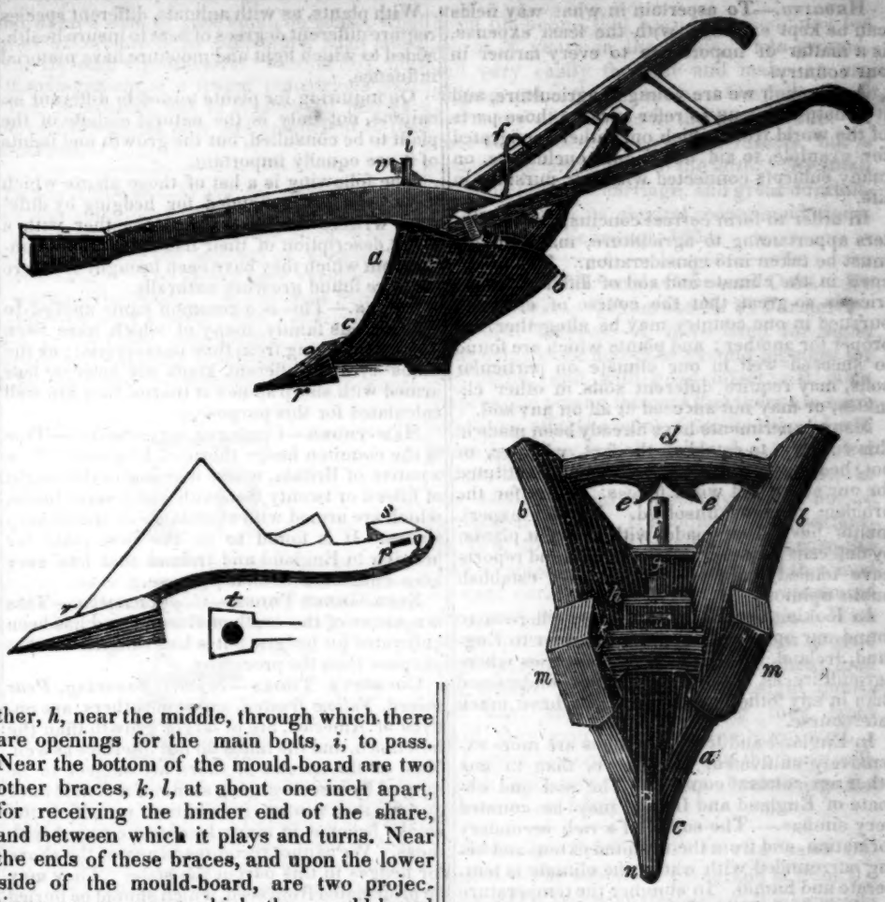
## AGRICULTURE, &c.

*C. H. M'Cormick's Self-Sharpening Horizontal Plough.* [Communicated by the Inventor for the Mechanics' Magazine.]

Be it known, that I, Cyrus H. M'Cormick, of Rockbridge county, and State of Virginia, have made an improvement in the useful arts, being a "self-sharpening horizontal plough," which is described as follows:

This plough, like most others, consists of a beam, handles, helve, mould-board, and share. In addition to these there is a latch-rod to make fast the mould-board and share, when changed to either side, and a main bolt to support the mould-board.

The beam, handles, and helve, are similar to those employed in other ploughs. The mould-board, represented at *a* in the annexed drawings, is made double, of cast iron, curved somewhat like other mould-boards, on both sides. The wings, *b b*, are united in part at *c*, and extend outward, making a suitable angle for turning over the earth. There is a brace, *d*, extending between the two wings, behind, supporting them firmly with projections, *e e*, on one side, for receiving the latch-rod, *f*, when changing the plough. Between the wings on the top, and near the front, is a brace, *g*, and another, *h*, near the middle, through which there are openings for the main bolts, *i*, to pass. Near the bottom of the mould-board are two other braces, *k*, *l*, at about one inch apart, for receiving the hinder end of the share, and between which it plays and turns. Near the ends of these braces, and upon the lower side of the mould-board, are two projections, *m m*, upon which the mould-board slides alternately. These projections can either be cast solid, with the mould-board, or be made of steel or cast iron, and be rivetted on. These projections serve also to hold and support the share when turned. At the front end of the mould-board is cast on it a projection, *n*, which serves as a pivot, on which the share turns.




The share, *o*, is made of cast or wrought iron, in a triangular shape. It consists of the neck, *p*, (with or without a head,) and a slat, *g*, for a key, placed behind the braces; also, a point, *r*, either cast on the share or made separately, and fastened on it by being riveted, or otherwise.

There is also a shoulder, or projection, *s*, by means of which and the latch-rod the share is kept in its place when changed. In the hinder end of the point is a cavity, *t*, to admit the point on the mould-board, upon which and the neck the share turns.

The *main bolt*, *i*, is made of wrought iron, and passes through the beam, and the two openings in the braces of the mould-board before mentioned having a head, *u*, on the lower end, and either a screw or key, *v*, on the head above the beam.

The *latch-rod*, *f*, is a plain curved rod of wrought iron, which extends from above the beam to the neck of the share, and is moveable from one side of the beam and mould-board to the other, passing between the beam and the projections on the brace of the mould-board, and entering between the neck of the share and the wing of the mould-board, and by which the mould-board and share are screwed in the position required.

Operation.—When required to plough on a hill-side, say the declination of the hill is on the right, the right wing of the mould-board and share must stand out from the beam to the right, and the other wing of the mould-board being nearly parallel with the beam, forms the land-side, the latch-rod being put in its proper place. One furrow being made in this position, the latch-rod is taken out, and turning the plough, resting on the share, the share is turned on the point of the mould-board, to the other side, or left, and the mould-board also changes sides. The left wing projecting out to the left, the right wing forming the land-side, the latch-rod is passed between the other side of the beam and the other projection on the brace, the points entering again between the neck of the share and other wing of the mould-board, which pressing the shoulder on the share, above that on the mould-board, makes it fast. The neck of the share might be made to turn on a pivot or collar on the centre, instead of the opening between the braces. A nail or pin is driven in the helve, below the brace, to prevent the mould-board from sinking behind, or the beam from rising, to steady the plough.

The invention here claimed, and desired to be secured by letters patent, consists in the peculiar arrangement and construction of the several parts of the plough, as before described, and particularly the mode of forming the point at the end of the mould-board on which the share turns; and the two braces with the space between them, in which the neck of the share works; the brace near the centre of the mould-board; the two projections on which the mould-board slides; and the share, with the mode of turning and fastening it by the latch-rod.

Done at the city of Washington this 29th day of October, 1833.

Cyrus H. M'Cormick.

HEDGING.—To ascertain in what way fields can be kept enclosed, with the least expense, is a matter of importance to every farmer in our country.

As a nation we are young in agriculture, and it is natural for us to refer back to those parts of the world from which our fathers emigrated for example, to aid us in our conclusions, on many subjects connected with our pursuits in life.

In order to form correct conclusions, in matters appertaining to agriculture, many things must be taken into consideration. The difference in the climate and soil of different countries is so great, that the course of cropping pursued in one country may be altogether improper for another; and plants which are found to succeed well in one climate on particular soils, may require different soils in other climates, or may not succeed at all on any soil.

Many experiments have already been made in this country, to establish the fact, whether, or not, hedges of any kind could be substituted for our stone and wood fences. Thus far the problem remains unsolved. Various experiments have been made with different plants, by different persons, and the results and reports have tended more to confuse than establish public opinion.

In looking abroad for examples, whereon to found our opinions, we naturally refer to England, Ireland, and France, as countries where agriculture as a science is better understood than in any other with which we have much intercourse.

In England and Ireland, hedges are more extensively cultivated, we believe, than in any other agricultural country. The soil and climate of England and Ireland may be counted very similar. The soil is of a rich secondary formation, and from their limited extent and being surrounded with water, the climate is temperate and humid. In summer the temperature rarely exceeds 75°, and during winter it seldom descends lower than 25° above zero, a variation not so great as has been known in this country within a few days.

From the scarcity of timber, and the consequent high price, methods are resorted to for enclosing their fields besides fencing with wood. Whenever stone can be procured at reasonable rates, they are preferred by farmers of every country to either wood fences or hedges.

Although from the peculiarities of the climate of England they have been successful in cultivating hedges, yet in France, where the temperature may be called temperate compared with ours, they did not find it for their interest to attend to their cultivation.

In England and Ireland the plant mostly cultivated for hedges is the quickset Haw-thorn, Cratægus *oxyacanthus*, a native of Britain, and is admirably calculated for that purpose. In France, where the climate is more warm and dry, the Haw-thorn does not flourish well; insects injure it, and it becomes covered with moss, stunted, and dies.

In America, or in this section of the United States, our summers are much warmer than they are in France, and our winters more severe, and we have never seen a haw-thorn hedge with us that had that healthy appearance that they have in England, which we consider as proof positive that our climate is not as congenial to their growth as that of the country in which they are found growing spontaneously.

The first proposition to be solved by our farmers is in what manner can their fields be securely fenced for a length of time at the least expense. To answer this, all circumstances must enter into the calculation.

Allowing that it is thought advisable in any locality in our country to attempt the cultivation of hedges, then it becomes important to know what plants will succeed best in a given locality.

On inquiring into the natural location of plants, we find them in belts extending from east to west, across continents, varying from a direct line, according to the humidity and temperature of the atmosphere and the nature of the soil on which they grow.

With plants, as with animals, different species require different degrees of heat to insure health, added to which light and moisture have material influence.

On inquiring for plants suited to different locations, not only is the natural climate of the plant to be consulted, but the growth and habits of it are equally important.

The following is a list of those plants which have been recommended for hedging by different writers on the subject, together with a short description of their habits, and the country from which they have been brought or where they are found growing naturally.

THORN.—This is a common name applied to a numerous family, many of which have been used for hedging from time immemorial; as the limbs of the different kinds are more or less armed with sharp spines or thorns, they are well calculated for this purpose.

HAW-THORN—*Cratægus oxyacantha.*—This is the common hedge thorn of England. It is a native of Britain, where it grows to the height of fifteen or twenty feet, with many small limbs, which are armed with abundance of small sharp spines. It is found to be the best plant for hedging in England and Ireland that has ever been cultivated for that purpose.

EVER-GREEN THORN—*C. pyracantha.*—This is a native of the south of Europe, and has been cultivated for hedges, but is less valuable for that purpose than the preceding.

COCKSPUR THORN—*Scarlet flowering, Pear leaved, Yellow fruited,* and some others, are natives of America, are of larger growth than the hawthorn, and the limbs do not interlace as well. Most of the species of thorn are subject to be injured by insects during summer and field mice during the winter, in addition to which the stocks become in many localities covered with moss. We cannot recommend any of the above for hedges in this part of the state. They may be propagated from seed, which should be buried one year in the earth, after which they should be taken up and planted in rows as other seeds in the nursery.

HONEY LOCUST—*Gleditschia Triacanthus.*—This is a native North American tree, found growing in the forests of the middle states, where it often attains the height of sixty feet, with a trunk proportioned to its height.

This tree has been recommended for hedging, but it is found impossible to keep it in a dwarf state. The limbs are large and not suitable for interlacing. As it is a native of the southern and middle states, it does not well endure our northern winters when young.

PRICKLY ASH—*Zanthoxylum fraxineum,* and *tricarpum.*—Both these varieties are native American shrubs growing to the height of eight or ten feet, the limbs are armed with short thorns. These shrubs spread so much by sprouting from the roots that either of them would prove very troublesome when set for hedge.

BARBERRY or BERBERRIS—*Berberris canadensis.*—This is an American shrub which infests many parts of the New-England states, growing to the height of six or eight feet, with upright stems, which are armed with slender sharp spines. Although we have long seen this shrub growing about fences, we do not recollect to have seen it treated as a hedge. From the strong prejudice there is against it, entertained by the New-England farmers, we think it would be difficult to induce them to cultivate it.

BUCK THORN—*Rhamnus catharticus.*—The English botanists claim this a native of Britain, and Professor Eaton says that it is found growing wild in New-England. From experiments made by E. H. Derby, Esq. of Massachusetts, it would appear that this is one of the most valuable plants for hedges in the northern states that has ever been tried. In this country it attains to the height of fifteen or twenty feet, the limbs are not long but thick, and are set with sharp spines. It endures the severity of our northern winters, and is not subject to be injured by insects. It is readily cultivated from seed, which are produced abundantly by old trees. [See Report of the Massachusetts Society, with Mr. Derby's communication annexed, page 15 of Appendix to New-York Farmer, for March, 1834.]

OSAGE ORANGE—*Maclura aurantica.*—This is an American shrub, found on the banks of the Arkansas and some other southern streams. The foliage is of a deep green, somewhat resembling that of the orange, and the limbs are set with sharp thorns. It does not endure our northern winters.

APPLES.—Both the common and crab apples have been tried for hedges in this latitude, but neither have succeeded so as to bear recommendation for this purpose. Like thorns, they are liable to be destroyed by insects in summer and by mice in winter.

If there is any tree or shrub that we can recommend to farmers at this time for the purpose of substituting for wood and stone fences, with hopes of being more economical, it is the *White Italian Mulberry--Morus alba.*

Professor Rafinesque, of Philadelphia, in speaking of different trees and shrubs with regard to their qualities for hedging, says, "I have left for the last this most valuable tree. It bears cutting, and is often raised in silk countries as a shrub and hedge, to collect the leaves easier. Grows with the utmost facility, lasting sixty years at least."

This tree, which is a native of China, appears perfectly naturalized in this country, or at least, coming from a country where the climate is not altogether different from our own, thrives well. It is easily cultivated, either from seed or cuttings. It grows to the height of thirty or forty feet, and somewhat resembles our common apple in shape and size.

As it appears well established now, that the raising of silk-worms and the making of silk in this country will be attended with a corresponding profit with other farming operations, there can be no danger in cultivating mulberry hedges, as it is allowed that it is the most profitable way to raise them when intended only for worms, and if they will answer the double purpose of feeding silk-worms and as a substitute for fences, the inducements to raise them must be very great.

When it is designed to raise plants from seed, they should be sown in the fore part of May, and one ounce of seed is thought to be sufficient for raising from eight to ten thousand trees.—[Goodsell's Genesee Farmer.]

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CULTIVATION OF NATIVE GRAPE.—N. Longworth, Esq. has experimented extensively in the culture of American grapes. His opinions are, therefore, entitled to attention. We give an extract from an address recently delivered:

"I have found no foreign grape that will pay the expense of open culture in our climate. Native vines, planted on ground with no other preparation than deep ploughing, have thus far succeeded better than those on steep side-hills, where the ground was prepared with great expense. Those parts of my vineyards fully exposed to the north have often ripened their fruit better than those with a southern exposure. Some of the finest wines of France are made in a northern latitude, and on hills fully exposed to the north.

"Others are deterred from the cultivation of the vine, from an impression that great skill is necessary. The vine requires less science in its cultivation than the peach or apple tree; and the manufacture of wine is a more simple process than that of cider. Cleanliness and a careful exclusion of unripe and decayed fruit are the great requisites. Wines may be improved after they are completed, by a mixture of the strong with the weak, the dry with the sweet, the flavorless with that possessing a high flavor; but this is the province of the wine-merchant.

"Again, it is said we cannot succeed with the manufacture of wine, because the addition of sugar is necessary to our grapes to give them the requisite sweetness. I have wine of my

own manufacture, now six years old, the pure juice of the grape. But in all wine countries, unless it be in those where light hard wines are made, sugar is added, or its equivalent. In Madeira, Xerxes, Oporto, various methods are resorted to. The grapes are suffered to hang till a bunch of raisins can be plucked—or a portion of the must is boiled down, till its fermenting quality is destroyed, and its saccharine nearly doubled, or a portion of the unfermented must is mixed with such a quantity of brandy as to stop the process of fermentation, and these are added to the must or wine. After the wine is perfected, from five to twelve per cent. of brandy is added. Even in the sunny clime of Italy, to enable their wine to keep without the addition of sugar, they boil the must, and the wine so made is called 'Vino Cotto.' In Germany and France, sugar is frequently added. But in all these cases the fermentation is checked before its completion, and the leaven precipitated by sulphuring and frequent racking. From experience, I am perfectly satisfied that it is immaterial whether the saccharine principle be in the grape or added to the must in the form of sugar.

"The reason so many have failed in the manufacture of domestic wine, is that, instead of making American wine, they have, by the process of manufacture, attempted to produce an imitation of popular foreign wines.

"The Schuylkill, Muscadell or Cape grape, the Isabella or Catawba, are the American grapes most in use for the manufacture of wine. The first by age becomes a good wine. The second will make a rich, sweet wine, by the process of manufacture necessary to accomplish this object, but it does not improve by age. From the Catawba, Major Adlum makes a rich, sweet wine. The wine which I manufacture from this grape is a light, dry wine, resembling those of the Rhine, and will successfully compete with any of them, but they are wines now for the first time coming in use among us, and command a high price.

"I have two other native grapes under cultivation, from which I have yet made only a few quarts of wine of great promise. They are also first-rate table grapes. The best wine of American manufacture that I have seen resembling Madeira, is made by a French gentleman of great intelligence, in S. Carolina, Mr. Herbemont. He sent me a sample. It is made from a grape called the Warren, or Herbemont's Madeira. I obtained this grape from him four years since, and do not hesitate to pronounce it an American grape, common in North Carolina, and to be found as far west as Missouri. As a table grape, it is equal to many imported varieties.

"In deciding how far the grape may be cultivated with us for profit, experience is better than theory. Nine years since I bought thirty acres of very broken ground four miles from the city, for which I paid three hundred dollars. There were about fifteen acres of cleared land, and about one half tillable. On this place I put an elderly German with a small family. He was to plant and cultivate a vineyard and have one half the product. Every thing raised by him on the place was for his own use. He spoke no English; was not worth ten dollars; and possessed of no learning. The vineyard was neglected, and made a secondary object; whilst he supported his family by raising vegetables for market. At the end of seven years his vineyard was less advanced than it should have been at the end of four years. The eighth year a part of his vineyard produced one thousand seven hundred gallons of wine to the acre. This encouraged him: his garden was neglected and his attention devoted to the vineyard. This season, 1833, his share of the wine will enable him to purchase from the government five hundred acres of land; and he has already made a purchase for each of his children. He can cultivate the grape as his fathers have done before him, in Germany; but he can make no changes to suit the difference of our climate, and I would sooner depend upon a man of good common sense, who had no experience in its cultivation, than most of the German vinedressers. I name this, not in disparagement of a frugal industrious part of our population, but to remove an impression that foreigners only are competent to the cultivation."

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Dutch Churns.—When the churning process was going on, I have observed the outside of the churn wrapped over with cloth, which I was told was for the purpose of keeping the outside clean. The Dutch have various ways of working the churn. At the large dairies it is generally with a horse; this I observed near Delft, at Ter Leide, near Leyden, and near Leuwarden, in Vriesland; at others they are churned by the hand, by turning a large fly-wheel,

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(figure 1.) At Almenaar, near Harlingen, I saw a churn made to go by the feet, the weight of the body being moved alternately from one side to the other, on a platform fixed on a pivot (fig-

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ure 2); to the one end of the platform a stalk being attached, which moved the churn-handle attached to another pivot. I observed at a farm near Gouda, that the churn was made to work from the ceiling in a very easy way; a piece of wood in the shape of an obtuse angle, was attached at the elbow to a pivot in one of the beams of the ceiling; the churn-stick was attached to the one end, and it was worked up and down by the hand at the other end, (figure 3.)

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And in North Holland they churn by means of dogs in wheels, in a similar way to the turnspits.—[Quarterly Journal of Agriculture.]

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*Directions for the Use of Bone Manure.* By Mr. Ogden. [From the New-York Farmer and American Gardener's Magazine.]

Mr. Editor: *Sir*,—Permit me, through the medium of your useful paper, to present to the agricultural community some hints on the use of ground bone for manure. The first and great object is to have the bone dust well fermented. The process is very simple—nothing more being necessary than to dampen it sufficiently to set it fermenting. The best method, however, is to make a compost of it with stable or yard manure, and let it ferment together. After it is fermented, it answers a very good purpose as top dressing for grass or winter grain, and may be applied early in the spring. If it is spread at the time of sowing, at the rate of 30 to 35 bushels per acre, it is harrowed in. This manure is applied with good effect to corn in the hill. Instances, however, of its too free use in this way have been known to fail; I should, therefore, recommend it to be applied broadcast. On a dry soil, especially, it is very beneficial to potatoes, particularly in a state of a fermented compost.

I would again repeat, that the great mystery in using bone is to have it fermented. Even old bones, that have been bleaching for scores of years in the fields, when ground, will very easily ferment and make an enriching and active manure. Gardeners will find many advantages in the use of bone. It does not introduce weeds, nor insects, but is considered prejudicial to the latter. Its small bulk, lightness of carriage, and great durability, are some of its general recommendations.

Brooklyn, February, 1834.

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*The Use of Ground Corn and Cobs.* By Mr. Ogden. [From the N. Y. Farmer.]

Mr. Editor,—I have been for some time using corn and cobs ground together for my cattle, and with good effect. It is an impression among farmers that there are some injurious effects arising from its use. I will state how they may be avoided. In the first place, the corn should be perfectly ripe. In the second, a large quantity should not be ground at a time. It should be kept perfectly dry, for a little moisture will cause the cob to mould. In the third, when this food is used constantly, potatoes or carrots should be given two or three times a week. With these precautions, the cob and corn ground together will be a wholesome and cheap food for cattle. I give my horses eight quarts per day, and, notwithstanding they labor hard, they gain in flesh and perform well.

I grind my corn and cobs in the bone mill, which will turn out many bushels in the course of an hour.

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Good and Poor Fruit in the same Orchard.—The subjoined paragraph is from Dr. Thatcher's American Orchardist. It is generally supposed that the mixing of the farina will not effect the fruit, but the seed only—that this is the method of nature to obtain new varieties. It would be well, however, for those having opportunity, to make observation.

A precaution is suggested that apple trees bearing bad or ordinary fruit should not be suffered to grow with those which bear fruit of a superior quality. It is a fact with which gardeners are familiar, that the blossoms of cucumbers will greatly injure the flavor of melons that grow near them; and it is reasonable to suppose that fruits, while forming on the trees, are liable in like manner to suffer deterioration. The result of the following experiment would seem to strengthen the above conjecture. The experiment, it is said, has in numerous instances succeeded without a single failure. In an orchard containing a great variety of apple trees bearing sweet, and some very acrid fruit, and others partaking of both these properties, in the vernal season, when the trees are in full blossom, the pollen (or impregnating dust) was taken from one tree (for example, where the fruit is very sweet,) and deposited on the flowers of a particular branch of another tree, whose fruit is extremely acrid. The apples of that particular branch were found to combine these two properties for that season, and by this simple process, the experimentor asserts, he can easily provide himself with apples for that season perfectly to his taste, which he considers much more expeditious and equally as certain a process as that of grafting.

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Clover among Corn.—A friend of mine sowed red clover among his corn after going through with the cultivator the last time, the seed was protected from the heat of the sun by the corn, it consequently vegetated very soon, and after the corn was cut off, there was a luxuriant growth of clover, which afforded fine pasture for several successive seasons. The red clover is an excellent manure: I have raised a fine crop of wheat, by ploughing in the second growth after harvest.—[Am. Farmer.]

NEW-YORK AMERICAN.

MARCH 15—21, 1834.

LITERARY NOTICES.

THE WRITINGS OF GEORGE WASHINGTON, *being his Correspondence, Addresses, Messages, &c. &c., with a life of the author: by* JARED SPARKS; vols. II and III: *Boston, Russell, Odiorne & Metcalf,* and *Hilliard, Gray & Co.*—In point of typographical embellishment and execution, these volumes are worthy of the matters and the name they are meant to illustrate. They are, in truth, admirable. Vol. I, to contain a life of Washington, is to be published while the work, which *may* extend to twelve volumes, is in progress. Of the two now given to the public, vol. II is occupied with letters and papers written by Washington before the American Revolution, and relate chiefly to the French war of 1756, in which he was so largely and so actively engaged. The whole of his career, from the time he joined Braddock till he retired from the army, is here recorded by himself. In an Appendix there is an elaborate and well reasoned article by the Editor, completely exonerating Washington from the only charge ever brought with any plausibility against his honor and good faith as a soldier—that of having commanded his troops, being then only 22 years of age, to fire on a French detachment commanded by *Jumonville*, sent to him, as the French allege, with a flag of truce; in the act of reading a peaceful summons to him to retire from lands claimed to be within the French limits, *Jumonville* fell. This story, founded originally upon the exaggerated report of a runaway French soldier, is most conclusively disproved; and it is shown that in firing on Jumonville's detachment, which had been lurking for some days around the camp of his own feeble band, Washington "did no more than execute the duty of a vigilant officer, for which he received the unqualified approbation of his superiors and of the public." Among the specimens, also given in the Appendix, of the early writings of Washington, there is a series of rules copied or compiled probably from various sources, entitled "Rules of civility and decent behaviour in company and conversation." We will, if we can find room to-day, annex some of these rules—if not, at some other time—as they manifestly exercised no little influence in the formation of Washington's character.

Vol. III., which commences the correspondence and papers relative to the Revolution, opens very appropriately with Washington's answer to Congress, on 16th June, 1775, accepting his appointment as commander-in-chief. The volume is devoted to letters and papers written in that capacity, to other general affairs to Congress, to provincial Congresses, and reaches to July, 1777. The political as well as personal considerations which led to the selection of General Washington, as commander-in-chief, and the noble devotion of New England, and of that thorough patriot, *John Adams*, one of her chief representatives, in suggesting and concurring in the choice of a Virginia general, to command armies wholly recruited at that time from the New England States, are ably exhibited in a note of the editor in the appendix.

Our only extract is the touching letter, so full of unfeigned humility—of true affection—and withal of unhesitating patriotism, in which General Washington communicated to his wife the news of his appointment to the command in chief. This is the only letter, Mr. Sparks says in a note, "from Washington to his wife, which has come into my hands. It is understood that Mrs. Washiugton destroyed all his other letters to her a short time before her death."

To Mrs. MARTHA WASHINGTON.

*Philadelphia, 18th June,* 1775.

"My Dearest—I am now set down to write to you on a subject which fills me with inexpressible concern; and this concern is greatly aggravated and increased, when I reflect upon the uneasiness I know it will give you. It has been determined in Congress, that the whole army raised for the defence of the American cause shall be put under my care, and that it is necessary for me to proceed immediately to Boston, to take upon me the command of it. You may believe me, my dear Patsy, when I assure you, in the most solemn manner, that, so far from seeking this appointment, I have used every endeavor in my power to avoid it, not only from a consciousness of its being a trust too great for my capacity, and that I should enjoy more real happiness in one month with you at home, than I have the most distant prospect of finding abroad, if my stay were to be seven times seven years. But as it has been a kind of destiny that has thrown me upon this service, I shall hope my undertaking is designed to answer some good purpose.

You might, and I supposed did perceive, from the tenor of my letters, that I was apprehensive I could not avoid this appointment, as I did not pretend to intimate when I should return. That was the case. It was utterly out of my power to refuse this appointment, without exposing my character to such censures as would have reflected dishonor upon myself and given pain to my friends. This, I am sure, could not, and ought not, to be pleasing to you, and must have lessened me considerably in my own esteem. I shall rely, therefore, confidently on that Providence, which has heretofore preserved and been bountiful to me, not doubting but that I shall return safe to you in the fall. I shall feel no pain from the toil or the danger of the campaign; my unhappiness will flow from the uneasiness I know you feel from being left alone. I therefore beg that you will summon your whole fortitude, and pass your time as agreeably as possible. Nothing will give me so much sincere satisfaction as to hear this, and to hear it from your own pen. My earnest and ardent desire is, that you would pursue any plan that is most likely to produce content, and a tolerable degree of tranquility; as it must add greatly to my uneasy feelings to hear that you are dissatisfied or complaining of what I really could not avoid.

"As life is always uncertain, and common prudence dictates to every man the necessity of settling his temporal concerns, while it is in his power, and while the mind is calm and undisturbed, I have, since I came to this place, (for I had not time to do it before I left home) got Colonel Pendleton to draft a will for me, by the directions I gave him, which will I now inclose. The provisions made for you in case of my death will, I hope, be agreeable.

"I shall add nothing more, as I have several letters to write, but to desire that you will remember me to your friends, and to assure you that I am, with the most unfeigned regard, my dear Patsy, your affectionate, &c."

We can desire nothing better for our country, than that in these days of party selfishess and political corruption, the pure self sacrificing virtue which is exemplified more and more, as new light is thrown upon the motives and character of Washington, may be widely studied and imitated.

ESSAYS *on the principles of Morality, and of the Private and Political Rights and Obligations of Mankind; by* JONATHAN DYMOND: *with a Preface by the* REV. GEO. BUSH, M. A.; 1 *vol.* 8*vo, pp.* 432; *N. York,* HARPER & BROTHERS.—Considering the age, the calling, and the circumstances of the writer, this book may be pronounced in every way remarkable. JONATHAN DYMOND was a member of the Society of Friends, who kept a small linen draper's shop in a country town in England. He wrote and reasoned of the high matters with which the volume before us is fraught, "in a little room adjoining his shop, subject to frequent interruptions from customers in the midst of his most profound and interesting speculations," and died in the early morning of life. When, then, it is added that he has produced a work characterized by deep reflection, severe logic, and a forcible and well ordered style; a work founded on the Bible as the first, and original, and unerring code of *ethics*; a work which at once enters the lists with a writer like *Paley*, and taking up and examining his doctrines of *expedieney* and *utility* as the basis of moral obligation, triumphantly "battles the fallacies of such spurious and dangerous" propositions, we have said enough to call general attention to this volume. There are many opinions in it indeed tinged with the peculiar color of the author's sect—ther are some from which most readers may dissent; but as a work inspired by the purest views and purposes, and reposing for its foundation and sanction upon the book of Truth, it will command unqualified approval. Prof. Bush and the publishers have done good service to the cause of morals in thus bringing it before the American public. There are occasional notes by Prof. Bush, indicated by the initial B., which may serve to qualify the assent that might otherwise by unreflecting minds be given to some of the peculiar and perhaps erroneous notions of the author.

As a specimen both of the author's style and manner of viewing questions, we subjoin his chapter on the *Law of Honor*:

*The Law of Honor.*—The law of honor consists of a set of maxims, written or understood, by which persons of a certain class agree to regulate, or are expected to regulate their conduct. It is evident that the obligation of the law of honor, as such, results exclusively from the agreement, tacit or expressed, of the parties concerned. It binds them *because* they have agreed to be bound, and for no other reason.—He who does not choose to be ranked among the subjects of the law of honor is under no obligation to obey its rules. These rules are precisely upon the same footing as the laws of free-masonry, or the regulations of a reading-room. He who does not choose to subscribe to the room, or to promise conformity to masonic laws, is under no obligation to regard the rules of either.

For which reasons, it is very remarkable that at the commencement of his moral philosophy, Dr. Paley says, *the rules of life* "are, the law of honor, the law of the land, and the Scriptures." It were strange indeed, if *that* were a rule of life which every man is at liberty to disregard if he pleases; and which, in point of fact, nine persons out of ten do disregard without blame. Who would think of taxing the writer of these pages with violating a "rule of life," because he pays no attention to the law of honor? "The Scriptures" communicate the will of God; "the law of the land" is enforced by that will; but where is the sanction of the law of honor?—It is so much the more remarkable that this law should have been thus formally proposed as a rule of life, because in the same work it is described as "unauthorized." How can a set of unauthorized maxims compose a rule of life? But further: the author says that the law of honor is a "capricious rule, which abhors deceit, yet applauds the address of a successful intrigue." And further still: "it allows of fornication, adultery, drunkenness, prodigality, duelling, and of revenge in the extreme." Surely then it cannot, with any propriety of language, be called a rule of life.

Placing, then, the obligation of the law of honor, as such, upon that which appears as its proper basis,—the duty to perform our lawful engagements—it may be concluded, that when a man goes to a gaming-house or a race-course, and loses his money by betting or playing, he is morally bound to pay: not because morality adjusts the rules of the billiard-room or the turf, not because the law of the land sanctions the stake, but because the party *previously promised* to pay it. Nor would it affect this obligation to allege, that the stake was itself both illegal and immoral. So it was; but the payment is not. The payment of such a debt involves no breach of the moral law. The guilt consists, not in paying the money, but in staking it. Nevertheless, there may be prior claims upon a man's property which he ought first to pay. Such are those of lawful creditors. The practice of paying debts of honor with promptitude and of delaying the payment of other debts, argues confusion or depravity of principle. It is not honor, in any virtuous and rational sense of the word, which induces men to pay debts of honor instantly, Real honor would induce them to pay their lawful debts *first:* and indeed it may be suspected that the motive to the prompt payment of gaming debts is usually no other than the desire to preserve a fair name with the world. Integrity of principle has often so little to do with it, that the principle is sacrificed in order to pay them.

With respect to those maxims of the law of honor which require conduct that the moral law forbids, it is quite manifest that they are utterly indefensible. "If unauthorized laws of honor be allowed to create exceptions to Divine prohibitions, there is an end of all morality as founded in the will of the Deity, and the obligation of every duty may at one time or other be discharged."* These observations apply to those foolish maxims of honor which relate to duelling.—

These maxims can never justify the individual in disregarding the obligations of morality. He who acts upon them acts *wickedly*; unless indeed he be so little informed of the requisitions of morality that he does not upon this subject perceive the distinction between right and wrong. The man of honor therefore should pay a gambling debt, but he should not send a challenge, or accept it. The one is permitted by the moral law, the other is forbidden.

Whatever advantages may result from the law of honor, it is, as a system, both contemptible and bad. Even its advantages are of an ambiguous kind; for although it may prompt to rectitude of conduct, that conduct is not found upon rectitude of principle. The motive is not so good as the act. And as to many of its particular rules, both positive and negative, they are the proper subject of reprobation and abhorrence. We ought to reprobate and abhor a system which enjoins the ferocious practice of challenges and duels, and which allows many of the most flagitious and degrading vices that infest the world.

The practical effects of the law of honor are probably greater and worse than we are accustomed to suppose. Men learn, by the power of association, to imagine that *that* is lawful which their maxims of conduct do not condemn. A set of rules which inculcates some actions that are right, and permits others that are wrong, practically operates as a sanction to the wrong. The code which attaches disgrace to falsehood, but none to drunkenness or adultery, operates as a sanction to drunkenness and adultery. Does not experience verify these conclusions of reason? Is it not true that men and women of honor indulge, with the less hesitation, in some vices, in consequence of the tacit permission of the law of honor? What then is to be done but to reprobate the system as a whole? In this reprobation the man of sense may unite with the man of virtue; for assuredly the system is contemptible in the view of intellect, as well as hateful in the view of purity.

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Mor. and Pol. Phil. b. 3, c. 9.

THE AMERICAN QUARTERLY REVIEW, No. XXIX. Philadelphia: KEY & BIDDLE.—A number this—of great vigor of writing and variety of topics We can only allude today to two or three of the papers. That on Thodore Dwight's History of the Hartford Convention is capital. It does ample justice to a work which itself does justice to a much calumniated set of public men and acts; and which will be hereafter received as *unquestionable* historical evidence, however party prejudice may at this day obscure its force. The paper on *England and America*, is searching and scorching. It is, we should be tempted to believe—though without having heard a word on the subject—from the same acute pen, and investigating mind, which produced the vindication of Sebastian Cabot. Mrs. Willard's letters from France are spoken of, without favor; and we must even admit, though harshly, without injustice. It were better, certainly, that they had remained in the portfolios of those to whom they were written. From the article respecting them, we extract some observations, on the tone and composition of French society, which we commend to our readers.

But Mrs. Willard's grand objection to Parisian society, is is want of a proper regard for morality.—Though we may feel inclined to smile at one of the causes she assigns for her belief in the justness of the charge—that "once, in a room where few persons were present, she saw, by a sudden turn, a lady of whom she never heard ill, touch her lips to the neck of a gentleman, as he stooped for some object beside her,"—it cannot altogether be denied. We really think, however, that the ideas generally entertained on that head, in our country, are greatly exaggerated. There may be vice, but it does not exhibit itself; our authoress acknowledges that "nothing can be more modest than the demeanor in society of all she met," and as long as external propriety is preserved, there can be no risk for those who are not disposed to seek occasions for sin. As to her complaint of never hearing "characters scanned in Paris as in America, as to the moral tendency of their actions," we do not know exactly whether to be amused or angry with it. The fondness of ladies for "scanning characters" is an old joke against them, and if we change the final syllable of the first word of the quoted phrase into *dal*, we shall have the invariable result of the operation; but what business; have people, either here or in Paris, to scan the characters of others, whose conduct, apparently, violates none of the rules of decorum? We would reverse the complaint, and lament that we do not imitate the Parisians in not meddling with the concerns of others, when we have no right or warrant for the interference. As long as no evil is inflicted upon the well-being of society by the visible conduct ot our neighbors, we hold that its interests are best consulted by a universal regard to the venerable injunction, "mind your own business." If the "moral tendency of the actions" of every one, is to be made the subject of reciprocal investigation, the millenium of dowagers is certainly at hand; but preserve us from becoming the theme of a knot of them firmly seated around a tea-table on a Sunday evening!

Whatever may have been the fact at a former period, we do not believe that, at present, a lady of disreputable character would be permitted to appear at the French court; and we do not doubt that, under proper guidance, a young lady might frequent the society of Paris with as much safety, as that of any city of the globe. We say under proper guidance, for, of course, in so varied and extensive an assemblage, no matter what might be its general excellence, circumspection and caution are indispensable. The freedom which is enjoyed in this country by the youthful portion of the sex, is only compatible with the smallness and compactness of our circles, where every one is, as it were, a guard upon every one.—Whenever fashionable intercourse here swells to the dimensions it possesses in the principal cities of Europe, that freedom must inevitably be abridged, and a system adopted with regard to young ladies similar to the one which is there pursued.

Would that we could model our society in some other respects upon that of Paris! that we could imitate the ease, the courtesy, the refinement, the disposition to please and to be pleased, the spirit of mutual concession, the faculty of extracting amusement from every thing and any thing, which never allow you there to ejaculate with the poet, in a fit of despondency and *ennui*,

> Business is labor, and man's weakness such,
> Pleasure is labor too, and tires as much;

but which, on the contrary, render pleasure that perfect relaxation so conducive afterwards to a cheerful and adequate attention to business. The French have unquestionably carried society to as high a degree of perfection as it can well be brought. Their talent, in this respect, almost strikes a stranger with wonder. A stupid party—a phrase, alas! which is as natural in an American mouth as freedom, liberty and independence—is a thing which they could scarcely be made to comprehend. Let any number of them congregate together, and megrim takes to flight with as much precipitation as the owl from the garish light of day. Every one contributes his or her quota to the general stock of amusement; a sombre visage is a mark of rudeness and ill-breeding; and on separating, all are disposed to repeat the exclamation of Moore's enraptured lover, "how swift the hours fly." He that is pleased himself must always others please, is an observation of Shakspeare, which is no where so abundantly confirmed as in a Parisian *réunion*. Mere amusement, however, is not all that a stranger gains by "going out" in Paris. The manner in which men of the greatest distinction in every way, in politics, in science, in literature, in art, mix in society there, furnishes him with ample opportunity of gratifying a laudable curiosity, and blending instruction with pleasure. Wherever he goes he may be always sure of encountering some one whom he must feel a desire to see, and whose acquaintance he will find no difficulty in making. Their rational politeness and affability are sufficient to embolden him to trouble them for a while with his insignficance, and thus acquire a source of agreeable recollection—in all probability of material advantage. This circumstance of the constant communion of such men with society, imparts to it, in a certain degree, an atmosphere of intellectuality which relieves and vivifies, if we may so speak, its unavoidable frivolousness, and may be said to act as an antidote to the bane of dissipation. In our country, unfortunately, men of eminence are so little addicted to frequenting the scenes of fashionable enjoyment, or when they do appear in them, it is with so slight a desire to take the prominent parts which they should perform, that society has fallen entirely into the hands of the young, and presents that aspect on which foreigners have so often remarked, of being little better than a boys' and girls' romp, where aught that is intellectual is sadly out of place. This is the reason, indeed, which the older and wiser portion sometimes assign for keeping in the back ground; but it is their own fault if it exists. Had they not resigned their proper stations at first, they would never have had cause to complain that society is totally destitute of attraction in their eyes; and should they now resume and exert their rights, a beneficial alteration must speedily ensue. Some standard of social distinction, of a more elevated order than spruce attire and proficiency in dancing, would then be introduced; young ladies would learn to appreciate other qualifications as more attractive and distinguished, and young gentlemen would feel a nobler ambition in relation to society than they can possibly do now, when mental cultivation and superiority are "of no mark or likelihood" whatever.

There are two other points in which it would be for the advantage of our society if the Parisian practice were followed. The first is that entertainment with the good things of this life, which seems to constitute in our minds the most important appurtenance of a *party* of every description. Eating is a never-ending, still beginning affair, on such occasions; your guests, like a ship before the wind, must constantly be "kept full;" and as this entails considerable expense, it may furnish one explanation why those really sociable meetings, which make so delightful a source of relaxation in Paris, are of such rarity here. The necessity, as it is deemed, of providing an abundance of amusement for the palate, no matter how small the assemblage, operates to prevent the keeping of open-house, which is so conducive to familiarity and good feeling, and imparts an air of pretension and formality, productive of a chilling effect upon "the genial current" of one's spirits. In Paris, a glass of lemonade, or orgeat and water, together wih a little cake, if that—is all the provision which is made for your physical man, at a common *soirée*, and more would only annoy you by interrupting the course of amusement; but here, you can scarcely open your mouth unless to swallow a cup of coffee, an ice, a jelly, chicken sallad, pickled oysters, or some other etherial comestible, following each other in in such rapid succession, that little else can be accomplished, than to do justice to them like every body else.—Then for a visitation, after you have retired to your couch, from that agreeable companion, the night-mare, or, the next day, from the pleasant sensations which dyspepsia occasions. The other point is the answering of invitations for an evening party—unless it be a setting supper, where it is requisite to know what number is to be present, which is never done acroad, and is an inconvenience to the invited, and of no moment to the inviter. The latter may be always sure of a quorum, whilst the former, in many instances, may not be able to tell whether it will be in their power or not to appear, and acting upon this uncertainty, often send a refusal, when eventually they find that they might go. Besides, unnecessary trouble is gived to servants in taking the answers, a useless consumption of their time is caused, and for one circulation generally in "the world," writing so many notes is not the most fasinating mode of employing leasure moments.

As always happens, when we imitate others, whilst we have rejected those customs of European society which it would be beneficial for us to pursue, we have adopted one which we have no business with whatever—we allude to the habit of going at a late hour to a party. In Europe, where the whole arrangement of life is different, where, in particular, the dinner hour is six or seven o'clock, this is unavoidable, and in keeping with every thing else; but, in this country, where, at four o'clock, for the most part, the cloth is removed from the table, what can be more nonsensical than to delay to repair to a ball until ten? It is quite as dark in winter at seven as at any period of the night, and there is no reason why as much pleasure cannot be enjoyed then as afterwards. Were it fixed upon as the time for assembling, many a stupid moment, we doubt not, would be escaped by those who are waiting impatiently and idly for the hour when they may depart for the estive scene, without endangering their ton, and many a rose would continue to bloom in cheeks from which they have disappeared under the blighting influence of vigils protracted long beyond the stroke of the midnight bell.

ENGLAND AND AMERICA—a Comparison of the Political and Social State of both Nations. 1 vol.—N. York: *Harper & Brothers*.—This volume—of so swelling a title and of great pretensions—which has been absurdly enough ascribed to the pen of Bulwer—is conclusively shewn by an article in the last *American Quarterly Review*, to be a republication

of a tract originally put forth in London by a knot of private land speculators, who were desirous of entrapping the British government into a scheme of colonizing the paupers of England in Australasia, for the benefit of those who should previously have monopolized the property in the soil there. Failing in that, their attention seems to have been turned to the U. States, and the absurd hope conceived, that by representing the immense advantage to this country of a large and constant supply of laborers from Europe, in peopling our waste lands—the government might be induced to pay for importing these laborers—employing the agency of these speculators, who were to be a sort of Colonization Society; and who, by speculating in our lands and in the cost of transporting their pauper countrymen, were to find their reward.

Such is clearly established to be the character of this book; and as such, therefore, we leave it to the contempt of the reading public.

Good's Book of Nature, abridged from the original work. *Boston*, Allen & Ticknor.—This is a happy notion, happily carried out. It is—by extracting and putting in short sentences, and in plain and intelligible language, the various amusing and instructive facts contained in Good's Book—to adapt them readily to the comprehension of children and young people. This is further aided by numerous well executed cuts—and by annexing to each paragraph or section, a question, by the answer to which, it may be at once ascertained whether the fact imparted has been understood. We can recommend this little book unhesitatingly, to parents.

It may be had of Goodrich & Wiley.

The Evergreen, a collection of stories for childhood and youth, with 20 plates. By—West—*Boston*, Lilly, Wait & Co., This, like the foregoing, is another contribution to the cause of youthful instruction—by seeking to render it attractive, as well as beneficial—and interesting the youthful learner, by stories and plates adapted to his comprehension, in those moral lessons, which, in a less winning form, might be deemed repulsive. The stories are mostly original, and the plates are well executed.

## FOREIGN INTELLIGENCE.

By the Caledonia, from Liverpool, we have London papers to the evening of 1st February. They have nothing as late from the Continent as we had previously received *via* Havre, and in England all seemed to be pretty tranquil. Parliament would meet for business on the 5th February. A few extracts are annexed:

Liverpool, Feb. 1.—Parliament resumes its legislative labors on Tuesday next, and perhaps less was expected when it assembled twelve month since, in all the odor of reform, than at the present moment. Then it was inexperienced, a new systed was to be tried; and new men were to develop their views.—Now however, the time for action had arrived; measures of deep moment cannot be longer postponed; and the advocates and opponents of reform in detail, are alike agreed that disputed questions must be finally adjusted.

There are six questions which will especially demand the attentive consideration of Parliament, and from which it cannot from any possibility escape They are, I. Church Reform; II. Claims of the Dissenters; III. the Corn Laws; IIII. Repeal of the Assessed Taxes; V. Poor Laws for Ireland, and an alteration in the English system; and VI. Corporation Reform.

A Portuguese ship of war is still lying off Gravesend. Various rumors are afloat as to the cause of the visit, the most probable which is, that she is engaged in watching the movements of Miguel's friends in the River. Two of the harbors on the opposite coast are said to be watched in a similar manner.

*Measures of Ministers.*—The Speech on the opening of the Sessions of Parliament, will, it is expected, be submitted to his Majesty at a Council to be held on Friday or Saturday (to-day). The extent to which the reduction of the assessed taxes will proceed has been formerly announced. The house tax will be wholly repealed; but the duty upon Windows, and other assessed taxes upon horses, carriages, &c. will be continued until a more favorable state of the revenue will allow of their reduction or repeal.

*The Wool Trade.*—There has been considerable activity in the market for long wool, which has caused prices to advance in a very remarkable manner.—A few days ago a large grower in Romney-marsh disposed of his whole growth for £23 a pack, conditionally, that he should receive any advance that might take place up to a certain period. The price is now £24, and should the present demand continue, no doubt it will increase to £25, and even £26.—[Kentish Cronicle.]

The subjoined advertisement from Galignani's Paris Messenger, is a specimen of a Paris fashion:

"*Matrimony.*—A sum of 6000 fr. will be paid to any person who may be able to arrange a union between a French gentleman, aged 42, a bachelor, and bearing the title of Marquis, with an English lady of adequate fortune. A bond for the stipulated premium, payable on the conclusion of the marriage, will be deposited in the hands of a notary. Address M. Le Baron D. H., Poste Restante, à Paris."

Later from England.—The *Samuel Robertson*, from London, brings Portsmouth papers of 8th ult.

The chief items of interest follow:

The dates from Spain are still not as late as those which have already reached us, nor is there any further news from Portugal. From Paris, the accounts are to one day subsequent to the funeral of M. Dulong, killed in a duel with General Bugeaud. This ceremony passed over without any disturbance.

The King of England opened the new session of Parliament on the 4th Feb. We give his Speech below, with a sketch of the proceedings, which followed from the London Courier. These, it will be seen, do not possess any points of greater interest here.

House of Lords, *Tuesday, Feb.* 4.

His Majesty this day opened the session of Parliament in person.

At half-past 1 the Lord Chancellor took his seat on the wool-sack.

His Majesty, attended by the usual Ministers of State, entered the House at a quarter after 2 o'clock. His Majesty, we are happy to say, looked very well. He appeared to be in excellent health.

The commons having been summoned, about 200 of them, headed by the Speaker, immediately presented themselves at the bar, when his Majesty proceeded to read, in a distinct and audible voice, the following gracious speech:

*My Lords and Gentlemen*—In calling you again together for the discharge of your high duties, I rely with entire confidence on your zeal and diligence, on your sincere devotion to the public interests, and your firmness in supporting on its ancient foundations, and in the just distribution of its powers, the established Constitution of the State. These qualities eminently distinguished your labors during the last session, in which more numerous and more important questions were brought under the consideration of Parliament than at any former session, of equal duration. Of the measures which have in consequence received the sanction of the Legislature, one of the most difficult and important was the bill for the abolition of slavery. The manner in which that beneficial measure has been received throughout the British Colonies, and the progress already made in carrying it into execution, by the Legislature of Jamaica, affords just grounds for anticipating the happiest results.

Many other important subjects will still call for your most attentive consideration. The reports which I will order to be laid before you from the commissioners appointed to inquire into the state of the municipal corporations; into the administration and effect of the poor laws, and into ecclesiastical revenues and patronage in England and Wales, cannot fail to afford you much useful information, by which you wil be enabled to judge of the nature and extent of any existing defects and abuses, and in what manner the necessary corrections may in due season be safely and beneficially applied.

It has been the constant aim of my policy to secure to my people the uninterrupted enjoyment of the blessings of peace. In this I have been much assisted by the good understanding which has been so happily established between my government and that of France; and the assurances which I receive of the friendly disposition of the other powers of the Continent, give me confidence in the continued success of my endeavors.

I have however to regret that a final settlement between Holland and Belgium has not yet been effected, and that the civil war in Portugal still continues. You may be assured that I shall be careful and anxious to avail myself of any opportunity which may afford me the means of assisting the establishment of a state of serenity and peace in countries, the interests of which are so materially connected with those of my dominions.

Upon the death of the late King of Spain, I did not hesitate to recognize the succession of his infant daughter, and shall watch with the greatest solicitude the progress of events which may effect her government and independence, the peaceable settlement of which is of the first importance to this country, as well as the general tranquility of Europe.

The peace of Turkey, since the settlement that was made with Mahemet Ali, has not been interrupted; and will not I trust be threatened with any danger. It will be my object to prevent any change in the relations of that empire with other powers, which might endanger its future stability.

*Gentlemen of the House of Commons:*—I have directed the Estimates for the ensuing year to be laid before you.

They have been framed with a view to the strictest economy and to such reduction as may not be injurious to the public service.

I am confident that I may rely on your enlightened patriotism, and on the cheerful acquiescence of my people for supplying the means which may be required to uphold the honor of my Crown, and the interest of my dominions.

The accounts which will be laid before you of the state of the Revenue, as compared with the Expenditure will be found most satisfactory.

*My Lords and Gentlemen:*—I have to lament the continuance of distress amongst the proprietors and occupiers of land; though, in other respects, the state of the country, both as regards its internal tranquillity and its commerce and manufactures, affords the most encouraging prospect of progressive improvement.

The acts passed in the last session for carrying into effect various salutary and remedial measures in Ireland are now in operation, and further improvements may be expected to result from the commissions which have been issued for other important objects of inquiry.

I recommend to you the early consideration of such a final adjustment of the tithes in that part of the United Kingdom as may extinguish all just causes of complaint, without injury to the rights and property of any class of my subjects, or to any institution in Church or State.

The public tranquillity has been generally preserved, and the state of all the provinces of Ireland presents, upon the whole, a much more favorable appearance than at any period during the last year.

But I have seen with feelings of deep regret and just indignation, the continuance of attempts to excite the people of that country to demand a Repeal of the Legislative Union. This bond of our national strength and safety I have already declared my fixed and unalterable resolution, under the blessings of Divine Providence, to maintain inviolate by all the means in my power. In support of this determination, I cannot doubt the zealous and effectual co-operation of my Parliament and my people.

To the practices which have been used to produce disaffection to the State, and mutual distrust and animosity between the people of the two countries, is chiefly to be attributed the spirit of insubordination which, though for the present in a great degree controlled by the power of the law, has been but too perceptible in many instances.

To none more than to the deluded instruments of the agitation thus perniciously excited is the continuance of such a spirit productive of the most ruinous consequences; and the united and vigorous exertions of the loyal and well affected, in aid of the Government, are imperiously required to put an end to a system of excitement and violence, which, while it continues, is destructive of the peace of society, and, if successful, must inevitably prove fatal to the power and safety of the United Kingdom."

Having delivered his speech, His Majesty retired. Prayers were then read, and the house was adjourned during pleasure.

[*From the London Courier.*]

The address of the House of Lords last night was moved by the Duke of Sutherland in a neat and temperate speech, in which his Grace very adroitly paid a well merited compliment to the Earl of Mulgrave. He also dwelt with evident satisfaction on the union between France and England, rejoicing in the efforts which are now making to cultivate industry and the arts of peace among that warlike people.—Lord Howard of Effingham, in seconding the Ad-

dress, referred chiefly to Ireland, and strongly recommended moderation and good temper, while no interest should be looked to but that of the whole people.

The Duke of Wellington, the only Peer who spoke in opposition, while he professed his intention not to oppose the address, made a long, and we must say, a very unfounded attack on the Ministers, going again over all the grounds which he and the Earl of Aberdeen so repeatedly trod last session. His Grace attributed the continuance of the civil war in Portugal to the countenance of this Government. Earl Grey reminded the noble Duke that our ships were only sent to Portugal to protect our own subjects, and it had been alleged that those ships strengthened the cause of Don Miguel. The Duke said that the civil war in Spain grew out of the civil war in Portugal; assigning as the reason that Don Carlos had found refuge there instead of going to Italy. But would he not have found refuge there and support, had Don Miguel been seated on the throne? In the present temper of the Spanish nation, it is idle to suppose that the Apostolical party could have quietly retained possession of power, and whatever strengthened Carlos, like the success of Miguel, would only have made the contest more bloody and more protracted. Earl Grey, therefore, properly stated, that he could not contemplate the possibility of the Apostolical party being triumphant without a greater certainty of civil war in Spain. His Grace complained that we had not interferred against Mehemet Ali; saying, that we had only to send a fleet to the Mediterranean, and that our directions would be as readily obeyed by that Pacha as by one of our own Admirals. His Grace wished therefore to be a Dictator, not only at home, but over all the world Is not this precisely that spirit and principle of which we now complain in Nicholas and of which we did complain in Bonaparte. Earl Grey properly said, "it was not the duty of the Government of the country to interfere in case of a war between the Sultan and his revolted vassal; that the government has remonstrated with the Viceroy, but that there had been nothing to justify us in making war on him;" and he stated that a fatal blow was given to the independence of Turkey by the Treaty of Adrianople, negotiated during the Duke of Wellington's ministry. On every point of his querulous complaints, the Duke was ably answered by Earl Grey, so as to leave nothing to be desired. With respect to the legality of the Corporation Commission, Earl Grey gave it to be understood that a similar Commission had been issued with the consent of the very person from whom the objection to the present Commission had proceeded. Earl Grey, we presume, alluded to Lord Eldon. The Noble Earl also stated, that he was desirous to put an end to the Coercion Law, but that circumstances did not permit it. The debate in the Lords had no other result than to show a disposition in the Duke of Wellington to find fault, without any adequate reason. The Address was agreed to.

In the Commons, after new writs had been moved for Leeds, Dungarvon, and Ayr, Mr. O'Connell began by announcing his intention to move for a return of all taxes repealed during five years, with a view, of course, to show that injustice has been done to Ireland. We hope a return will also accompany it of the sums expended on Ireland. The Hon. Member also gave various other notices, among them one for a bill to secure the liberty of the press.

Mr. Littleton is to bring that part of the King's Speech which relates to tithes, under the notice of the House on the 20th of February.

Bills are to be brought in to disfranchise Warwick, Stafford and Carrickfergus. The announcement by the Solicitor General of a bill to abolish imprisonment for debt was received with cheers. Various other motions were given by individual members, such as a notice to exclude Bishops from the House of Lords, by Mr. C. Rippon, and a motion to repeal the Septennial Act by Mr. Chichester; but his Majesty's Government was chary of announcements, and they all relate to important matters.

*The Dissenters.*—Lord Althorp stated it is the intention of Government to propose a bill for the regulation of Dissenters' marriages, and that the Government will be ready to remedy the other evils under which they labor.

*The Corn Laws.*—In answer to a question put by Mr. Handley, Lord Althorp stated that it was not the intention of his Majesty's Government to propose any alteration in the corn laws, and that if any person brought forward a proposition to alter them, the Government would not support it. We must add, lest misunderstanding should prevail on this point, that the Noble Lord said the Government collectively; and we have good reason to believe that several individuals belonging to the Government will support such an alteration in those laws as will substitute a reasonable fixed duty for the present graduated scale of duties. Mr. Hume and Mr. Hunt severally gave notice of motions on this subject.

The Address in answer to the Speech was moved by Mr. S. Lefevre, who made a speech much superior to the ordinary run of speeches on such occasions, but being a country gentleman, he very naturally dwelt more on the poor laws and on the state of the agricultural interest than other things. Mr. Morrison seconded the motion, and in a speech that was still more able than that of Mr. Lefevre's, entered at great length into the state of our manufactures, which he shewed to be in a state of prosperity. We are also happy to state, on the Hon. Member's authority, that this prosperity has in general extended to the laborer. The Hon. Member also shewed that the sufferings of Ireland since the Union, of which Mr. Connell complains so much, had been shared in by this country, and that it was beyond the power of the legislature to control the empire of fashion.

Colonel Evans made some severe remarks on the subject of the assessed taxes, but the Hon. Member declined to move any amendment. He bore a very flattering testimony, derived from personal observation, to the moderation with which Don Pedro has exercised his power.

Mr. Hume moved two amendments; the first, seconded by Mr. Warburton, was to pledge the House to take into consideration the state of the Established Church as to its temporalities, on which the House divided, and Mr. Hume was supported by 39 Members; the second was to pledge the House to make reductions in the establishment, which the Hon. Member did not press to a division.

Lord Althorp, in reply to Mr. Hume, stated, that great reductions might be made without detriment to the public service, and it was the intention of the Government to propose a reduction of taxes. He announced that he is to bring in a measure on the repeal of tithes, which would be satisfactory to the House, and the country at large, and he hoped that the question would be settled this Session.

Mr. Robinson opposed the views of Mr. Morrison, and Mr. Grattan censured the part of the Speech which relates to Ireland.

Mr. O'Connell, after a more moderate speech than was expected from him, moved to leave out the three last paragraphs of the address.

Mr. Littleton made an able reply to the Hon. Member for Dublin, so as to make it unnecessary for any person connectd with the Government to speak, declaring, however, that if something were not done as to tithes he should consider the case of Ireland desperate.

Sir R. Peel stated the qualifications with wbich he supported the Address, which related chiefly to our foreign policy. After some observations from Lord Palmerston and Mr. Baring the Address was unanimously agreed to, and the House adjourned at the reasonable hour of a quarter before midnight.

London, Feb. 4.—We have received by express the Paris papers of Sunday, together with letters from Madrid of the 21st and 22d ult. The particulars of M. Dulung's funeral, which took place on Saturday, occupy a considerable space of most of the Paris papers. It appears that there were 30,000 men under arms, for the purpose of suppressing any movement which might have threatened an *emeute*.

On Monday, a smack brought into Dover, George Pile, the second mate, and three seamen, and four passengers belonging to the Seaton Castle, of Whitby, from Liverpool to New York, wrecked in the Western Ocean. They were taken off the wreck, where they had remained twenty eight days.—[Kentish Gaz.]

## SUMMARY.

Death of Mr. Newton, the distinguished American Artist. The London Literary Gazette says—

"It is with regret that we have this morning received intelligence of the death of Mr. G. S. Newton, the Royal Academician, which took place on this day week, after a short but melancholy illness. Mr. Newton could not have reached his fortieth year; and, we lament to add, has left a widow and an infant child only a few months old. The grace, beauty, and feeling of his compositions are two well known to need our praise (which, indeed, they have often received in the highest terms); and we can only express our deep sorrow for his premature loss."

Planters' Bank, Mississippi.—The rumor of the failure of this bank is undoubtedly erroneous. It is known that it has, in a Philadelphia bank of responsibility, a cash balance at this moment of $60,000.—Letters from Cincinnati, of the same date as that containing the report, are silent on the subject.

*To the Editor of the New York American:*

Sir: Our community is at this moment so engrossed in the great financial dispute, that the notice which, with your customary prompt attention to the fine arts, you inserted in the American, of Cole's picture, may have been overlooked, or forgotten. Every American should be proud to pay the tribute of his homage to this surpassing production of the genius of his countryman. We can imagine no surer mode of unspending (for a while at least) the carking cares of this world—of raising the mind above *deposites* and *discounts* and all mere temporary interests—than by a contemplation of the picture of the Angels appearing to the Shepherds, where the poetic painter has so powerfully illustrated the scene of the annunciation, that as you look on the beautiful scene you feel as if you were listening, with the Shepherds, to the good tidings of great joy which shall be to all people. We would earnestly recommend to mothers to avail themselves of this opportunity to impress on their children through the medium of the eye (which, as the engravers say, cuts in) one of the most interesting scenes in the religious history of man.

Is the cross in the Star of Bethlehem an original idea of Mr. Cole? If so, he must have the credit of an exquisite conception of genius. L.

*Fire at Harrisburg.*—Quite a distructive fire took place at Harrisburg on Friday last. It broke out about nine o'clock, in Second street between Locust and Pine, in a frame building occupied by Mr. George Boyer as a dwelling house and tallow chandlery, and immediately communicated to the adjoining buildings, spreading destruction and panic on all sides, and before it was arrested totally consumed it together with the house owned and occupied by Mr. Lawrence Lewis, Assistant Doorkeeper of the Senate; a house owned by Mrs. Baisley and occupied by Mrs. M'Elwee; a part of the house also owned and occupied by Mrs. Baisley; and a shop occupied by Mr. John Kunkle.—[Philadelphia Inquirer.]

Great Fire at Syracuse, March, 16.—*Extract of a private Letter.*—I regret to inform you that we had an awful fire last evening in this place. It was discovered in a store of wood opposite Syracuse House, at 11 o'clock at night. It burned, with the rapidity of lightning, the entire block of stores from the main bridge in front of Syracuse House on both sides of the Canal to the next street East.

The loss exceeds $100,000, upon which there is an insurance of near $50,000. About 30 active, industrious Merchants, by this fire, have been cast out of their places of business, and the greater portion of their goods burned and destroyed.

An entire block was saved by the timely aid of an engine from Salina.—[Jour. of Com.]

### THE BLIND.

You see those flowers, my lovely child,
Are they not beautiful and bright?
Is not your little bosom wild
With gladness at so fair a sight?

Look at your sister's rosy cheek,
And in your mother's beaming eye;
Has language any words to speak
The loveliness you there espy?

Behold that bird whose pinions float
In grace and gladness o'er the air,
The beauty of whose warbling note
Can scarcely with his plumes compare.

And mark, too, yonder beaming bow,
Reflecting all the hues of heaven;
Is there a happiness you know
Sweeter than this bright form has given?

Even night hangs out its lamps to thee,
Like diamonds round its ebon throne,
And bids you gaze in ecstasy
On worlds revealed to sight alone.

Know you, my child, that there are eyes
That never gazed upon a flower,
Ne'er saw the rainbow's lovely dyes,
Beaming upon the summer shower?

That ne'er beheld a sister dear,
Ne'er felt a mother's tender smile,
And know no solace but a tear,
Their endless midnight to beguile?

Then go with me and hear the song
That swells to cheer these saddened ones,
The sparkling eyes of all our throng
Shall to their darkness be as Suns.

We have had for several days the the pamphlet referred to in the annexed paragraph from the Journal of Commerce, without finding time to read it. We therefore willingly avail ourselves of the article on the subject, from that paper.

NEW GRANADA AND FRANCE.—We have before us a pamphlet of 159 pages, published at Bogota, containing the official correspondence between the Government of New Granada and the Chargé d'Affaires of France, on the subject of the treatment of the French Consul (Barrot) at Carthagena, by the subaltern authorities of that place. Without attempting to decide on the very doubtful question about the privileges and immunities of Consuls, we have been struck with the spirit of forbearance and reconciliation which pervades the communications between the parties, as presenting a remarkable contrast to those of the Commander of the French squadron of Carthagena.

Whatever the errors of the authorities of Carthagena may have been, it appears evident from the aforesaid communications, that the Government of New Granada have done every thing in their power to put an honrable termination to the difficulties which have arisen from the Consul's treatment. An official note of the 9th January, from the Granadian Government to the Chargé d'Affaires of France, offers such reparations, as it seems to us, should be fully satisfactory in a case like this, in which the privileges and immunities claimed, are not explicitly agreed on, nor implicitly admitted by the respective Governments. On reading the communication, one would have anticipated the acceptance of the terms offered, and a termination of the unpleasant affair.—These terms were, 1st. The punishment of any person or persons who should prove to have acted improperly towards the Consul. 2d. The removal from office of Col. Vezga, Governor of Carthagena at the time: 3d. The installation of a Vice Consular office at Carthagena, hoisting the French flag on the Consular house, accompanied by salutes from the Artillery; and, 4thly. Indemnity for the losses incurred by the Consul according to a fair valuation of the property.

The Chargé d'Affaires, for reasons we do not know, did not accept these reparations, and the Granadian Government has hastened to send a diplomatic Mission to the French Court, to have the difficulties settled. The person chosen for this object is Colonel J. M. Gomez, well known in this country as Secretary for many years of the 1st Colomb. Legation sent to this country at the head of which was the Hon. J. M. Salazar, Minister Plenipotentiary. Col. Gomez was afterwards sent as Chargé d'Affaires to the Court of Rio Janeiro, and after having concluded a treaty with the Brazilian Government, returned to his country, where he has been employed in responsible and useful services under the Government, and was Treasurer in the important province of Antioquia, when the occurrences with the French Consul induced the Government to charge him with this mission to the King of the French. We hope that through the tact and abilities of Colonel Gomez, the difficulties will be settled, both parties be righted, and that harmony and good understanding re-established which are so vital to the interests of both countries.—[Jour. of Com.]

*United States Ship Fairfield.*—It appears from a statement in the Norfolk Beacon, that on the night of November 25th, when President Flores recaptured Guayaquil from Gen. Rocafuerte, a boat was sent on shore from the United States Ship Fairfield, then in the harbor, to ascertain the cause of the firing.

About 11 o'clock the boat returned, having been fired into by the troops of Flores; two of the boat's crew were wounded; one of them, *Henry Young*, had six balls in him, two of which were in his head; he died about half an hour after getting on board; the other man, *Wm. Gunnerson*, had two balls thro' his body, and his left arm broken; he was recovering. The Fairfield was at Payta 13th Dec. to sail in ten days for Callao, and thence in a few days for Valparaiso.—All well.

*Caution to Whalemen.*—We have been favored with an extract of a letter from Captain W. Barney, Jr. of ship Barclay of this port, now in the Pacific Ocean, dated Oct. 10, 1833, containing the substance of an important communication to him from Captain Long, of the U. S. schr. Dolphin, lying at that time in the port of Callao.

Capt. L. furnishes the translation of a decree issued by the President of Lima, and Heads of Departments of the Peruvian Government, prohibiting all foreign vessels from whaling or sealing in the bays along the coast, or on any of the islands of the Republic, without license previously obtained; under penalty of seizure and detention in any port of the Republic, without redress, or recovery of damages for being so seized and detained.

This is a regulation of serious moment to those concerned in the fisheries on that coast: and, without due precaution, may be the occasion of much dispute.—[Nantucket Inquirer.]

*Fatal accident.—Four lives lost.*—On Tuesday, the 4th inst., six men were engaged in navigating a flat-boat, laden with stone-coal, down the Youghiogheny river, in this state. On approaching the Little Falls, in Fayette county, it was discovered that the boat was not in middle of the shute, which is very rapid. Their fate seemed as inevitable as it was appalling. Consternation and dismay overwhelmed the party. One or two abandoned the boat, and made for the shore. The others remained in mute despair, and were carried over the falls with the boat, which turned sidewise in its passage, and was sunk with its contents. Four were drowned, and two got to shore with great difficulty. Their names we cannot give.—[Philadelphia Inquirer.]

[*From the Troy Free Press.*]

FACTS FOR FARMERS.—From a table of prices current, for the city of Troy, it will be seen what effect the experiment now making by our rulers upon the currency of the country, has had upon the produce of the farmer.

WHEAT, which last fall sold at $1 12 to $1 15, is now dull at 92 to 96 cents.

RYE then sold at 75 to 80 cents, now it is reduced to 50.

CORN, (yellow) which then sold at 75 cents, now sells at 50 to 56.

CORN (white) then sold at 81 cts, now at 56 to 62.

There is also, it will be seen, considerable reduction in the price of Flour, and which is dull even at reduced prices.

MESS PORK, which then sold for $15 per bbl. is now reduced to $13 and $12 50.

PRIME PORK has fallen from $12 per bbl. to $10 and $9 50.

This unusual fall in the prices of the products of the farmer, is the more worthy of attention, and affords an alarming symptom of the diseased state of trade and business—since it occurs at a season of the year—the opening of the river, and of the spring trade—when always, heretofore, prices have experienced material improvement, rather than depression.

On Thursday last, (says the Georgia Enquirer of the 1st instant,) the companies of Artillery lately from Old Point Comfort, who have been stationed for some time at Fort Mitchell, took their leave, in the steamer Sangamon; and on yesterday several companies of Infantry passed through this place, from the same station, on their way to Tennessee.

[*From the Edinburgh Observer.*]

SIR WALTER SCOTT AND THE ROXBURGHE CLUB.

Early in 1823, in consequence of a vacancy in the Roxburghe Club, occasioned by the death of one of its members, it was proposed by Earl Spencer, the President, at the annual meeting to elect the "Unknown Author of Waverley," and the Secretary, Dr. Dibdin, was requested to address Sir Walter Scott on the subject. The two following letters were in consequence received by Dr. Dibdin, from Sir Walter Scott. The worthy and estimable Baronet met the Club but once, at their anniversary in May, 1825.

"MY DEAR SIR,—I was duly favored with your letter, which proves one point against the unknown author of Waverley; namely, that he is certainly a Scotsman, since no other nation pretends to the advantage of second sight. Be he who or where he may, he must certainly feel the very high honor which has selected him *nominis umbra*, to a situation so worthy of envy.

"As his personal appearance in the fraternity is not like to be a speedy event, one may presume he may be desirous of offering some test of his gratitude in the shape of a reprint, or such-like kickshaw, and for this purpose you had better send him the statutes of your learned body, which I will engage to send him in safety.

"It will follow as a characteristic circumstance, that the table of the Roxburghe, like that of King Arthur, will have a vacant chair, like that of Banquo at Macbeth's banquet. But if this author, who hath 'fern-seed and walketh invisible,' should not appear to claim it before I come to London (should I ever be there again) with permission of the Club, I, who have something of adventure in me, although a Knight like Sir Andrew Aguecheek, dubbed with unpacked rapier, and on carpet consideration, would, rather than lose the chance of a dinner with the Roxburghe Club, take upon me the adventure of the *siege perilous*, and reap some amends for perils and scandals into which the invisible champion has drawn me, by being his *locum tenens* on so distinguished an occasion.

"It will be not uninteresting to you to know, that a fraternity is about to be established here, something on the plan of the Roxburghe Club; but, having Scottish antiquities chiefly in view, it is to be called the Bannatyne Club, from the celebrated Antiquary, George Bannatyne, who compiled by far the greatest records of old Scottish poetry. The first meeting is to be held on Thursday, when the health of the Roxburghe Club will be drunk.

"I am always, my dear sir, your most faithful humble servant, WALTER SCOTT.

Edinburgh, Feb. 25, 1823.

"*My dear Sir*—I am duly honored with your very interesting and flattering communication. Our Highlanders have a proverbial saying, founded on the traditional renown of Fingal's dog, "If it is not Bran," they say, "it is Bran's brother." Now this is always taken as a compliment of the first class, whether applied to an actual cur, or parabolically to a biped; and upon the same principles, it is with no small pride and gratification that the Roxburghe Club have been so very flatteringly disposed to accept me as a *locum tenens* for the unknown author whom they have made made the child of their adoption. As sponsor, I will play my part as well as I can; and should the real Simon Pure make his appearance to push me from my stool, why I shall have at least the satisfaction of having enjoyed it.

"'They cannot say but what I *had* the crown.'

"Besides, I hope the devil does not owe me such a shame. Mad Tom tells us that the Prince of Darkness is a gentleman, and this mysterious personage will, I hope, partake as much of his honorable feelings as of his invisibility, and resuming his incognito, permit me to enjoy, in his stead, an honor which I value more than I do that which has been bestowed on me by the credit of having written any of his novels.

"I regret deeply I cannot soon avail myself of any new privileges; but courts, which I am under the necessity of attending, officially sit down in a few days, and, *hei mihi!* do not arise for vacation until July. But I hope to be in town next spring; and certainly I have one strong additional reason for a London journey, furnished by the pleasure of meeting the Roxburghe Club. Make my most respectful compliments to the members at their next merry meeting; and express, in the warmest manner, my sense of obligation.

"I am always, my dear sir, very much your obedient servant, "WALTER SCOTT.

"Abbotsford, May 1, 1823."

[*From Traits of Indian Life.*]

DWELLING OF A EUROPEAN LADY.—"The mansion, with its porticoes and pillard verandas, stood in the midst of glittering lawns, the verdure of which was relief to the eye from the painful glare of the burning sunlight; the evergreen shubberies formed a shady border to the emerald-colored carpet, and a sheltered choir for the mango-bird, the meina, and the coel. From the Portico Eva entered a circular hall, floored with polished marble and portioned off by rows of pillars, through which the eye wandered amongst a lengthened chain of halls, all similarly paved with marble, and apparently only separated from the hall itself by clusters of columns. But to Eva, just landing after the confinement of the beauliah, the delicious and sombre light which penetrated through the closed venetians, gave to the gray marble floors the cool semblance of a still surface of water, sheltered in the shady nook of some deep valley. In the secret of admitting the exact portion of external light, lies half of that beauty which our oriental residences possess. The suite of well-furnished drawing-rooms on the first floor was not less splendid, though in a different character. November, the cool season, having commenced, the whole suite of rooms had been carpeted with one rich piece of Brussels' handsomest manufacture. Ottomans and couches of light blue satin, heavy chandeliers and girandoles, musical instruments, and elegant fancy tables, filled the spacious apartments, with a profusion which perhaps the better taste of London would pronounce too redundant; yet amidst all the richness of furniture with which the fashion of later years has adorned the houses of Calcutta, few things strike the stranger's eye so forcibly as the picturesque forms and customs of the numerous native servants; and above all, the silent and graceful manner in which they seem to glide through the apartments."

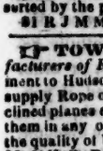
### TO STEAMBOAT COMPANIES.

☞ PROFESSOR RAFINESQUE, of Philadelphia, offers his services to render steamboats incombustible, and not liable to sink, even by the bursting of boilers, or striking against snags, sawyers and rocks. This will save many boats, much property, and the lives of hundreds every year. Those who neglect this easy improvement, deserve to be neglected and deserted by the public as unmindful of safety. Apply, post paid.
S1 R J M M & F

☞ TOWNSEND & DURFEE, of Palmyra, *Manufacturers of Railroad Rope*, having removed their establishment to Hudson, under the name of *Durfee, May & Co.* offer to supply Rope of any required length (without splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. R. Co., Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.

Hudson, Columbia county, New-York,
January 29, 1833.

### ALBANY SEED-STORE AND HORTICULTURAL REPOSITORY.



The subscriber having resumed the charge of the above establishment, is now enabled to furnish traders and others with FRESH GARDEN SEEDS, upon very favorable terms, and of the growth of 1833, *warranted* of the best quality.

The greatest care and attention has been bestowed upon the growing and saving of Seeds, and none will be sold at this establishment excepting those raised expressly for it, and by experienced seedsmen; and those kinds imported which cannot be raised to perfection in this country; these are from the best houses in Europe, and may be relied upon as genuine.

It is earnestly requested whenever there are any failures hereafter, they should be represented to the subscriber; not that it is possible to obviate unfavorable seasons and circumstances, but that satisfaction may be rendered and perfection approximated.

ALSO—French Lucern, White Dutch Clover, White Mulberry Seed, genuine Mangel Wurtzel, Yellow Locust, Ruta Baga, and Field Turnip Seeds, well worth the attention of *Farmers*.

W. THORBURN,
347 N. Market st. (opposite Post Office.)

☞ Catalogues may be had at the Store; if sent for by mail, will be forwarded gratis. Orders solicited early, as the better justice can be done in the execution.

*** Mr. Thorburn is also Agent for the following publications, to wit:—

NEW YORK FARMER and American Gardener's Magazine.

MECHANICS' MAGAZINE and Register of Inventions & Improvements.

AMERICAN RAILROAD JOURNAL and Advocate of Internal Improvements; and the

NEW-YORK AMERICAN, *Daily, Tri-Weekly*, and *Semi-Weekly; either* or *all* of which may be seen and obtained by those who wish them, by calling at 347 *North Market street, Albany*.

### SURVEYORS' INSTRUMENTS.

☞ Compasses of various sizes and of superior quality, warranted.

Leveling Instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by E. & G. W. BLUNT, 154 Water street,
J31 6t corner of Maidenlane.

### ENGINEERING AND SURVEYING INSTRUMENTS.

☞ The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely *new*: among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also, a Railroad Goniometer, with two Telescopes—and a Levelling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.

WM. J. YOUNG,
Mathematical Instrument Maker, No. 9 Dock street,
Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad. I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,
JAMES P. STABLER, Superintendant of Construction of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors. E. H. GILL, Civil Engineer.

Germantown, February, 1833.

For a year past I have used Instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY R. CAMPBELL, Eng. Philad., Germant. and Norrist. Railroad
m1 1y

### STEPHENSON,

*Builder of a superior style of Passenger Cars for Railroads*
No. 264 Elizabeth street, near Bleecker street,
New-York.

☞ RAILROAD COMPANIES would do well to examine these Cars; a specimen of which may be seen on that part of the New-York and Harlæm Railroad, now in operation.
J15 tf

### RAILROAD CAR WHEELS, BOXES AND AND OTHER RAILROAD CASTINGS.

☞ Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New-York, will be promptly attended to. Also, CAR SPRINGS.

Also, Flange Tires turned complete.
J8 ROGERS, KETCHUM & GROSVENOR.

### NOVELTY WORKS,

Near Dry Dock, New-York.

☞ THOMAS B. STILLMAN, Manufacturer of Steam Engines, Boilers, Railroad and Mill Work, Lathes, Presses, and other Machinery. Also, Dr. Nott's Patent Tubular Boilers, which are warranted, for safety and economy, to be superior to any thing of the kind heretofore used. The fullest assurance is given that work shall be done well, and on reasonable terms. A share of public patronage is respectfully solicited. m18

### INSTRUMENTS.

### SURVEYING AND NAUTICAL INSTRUMENT MANUFACTORY.

☞ EWIN & HEARTTE, at the sign of the Quadrant, No. 53 South street, one door north of the Union Hotel, Baltimore, beg leave to inform their friends and the public, especially Engineers, that they continue to manufacture to order and keep for sale every description of Instruments in the above branches, which they can furnish at the shortest notice, and on fair terms. Instruments repaired with care and promptitude.

For proof of the high estimation on which their Surveying Instruments are held, they respectfully beg leave to tender to the public perusal, the following certificates from gentlemen of distinguished scientific attainments.

To Ewin & Heartte.—Agreeably to your request made some months since, I now offer you my opinion of the Instruments made at your establishment, for the Baltimore and Ohio Railroad Company. This opinion would have been given at a much earlier period, but was intentionally delayed, in order to afford a longer time for the trial of the Instruments, so that I could speak with the greater confidence of their merits, if such they should be found to possess.

It is with much pleasure I can now state that notwithstanding the Instruments in the service procured from our northern cities are considered good, I have a decided preference for those manufactured by you. Of the whole number manufactured for the Department of Construction, to wit: five Levels, and five of the Compasses, not one has required any repairs within the last twelve months, except from the occasional imperfection of a screw, or from accidents, to which all Instruments are liable.

They possess a firmness and stability, and at the same time a neatness and beauty of execution, which reflect much credit on the artists engaged in their construction.

I can with confidence recommend them as being worthy the notice of Companies engaged in Internal Improvements, who may require Instruments of superior workmanship.

JAMES P. STABLER,
Superintendent of Construction of the Baltimore and Ohio Railroad.

I have examined with care several Engineers' Instruments of your Manufacture, particularly Spirit levels, and Surveyor's Compasses; and take pleasure in expressing my opinion of the excellence of the workmanship. The parts of the levels appeared well proportioned to secure facility in use, and accuracy and permanency in adjustments.

These Instruments seemed to be to possess all the modern improvement of construction, of which so many have been made within these few years; and I have no doubt but they will give every satisfaction when used in the field.

WILLIAM HOWARD, U. S. Civil Engineer.

Baltimore, May 1st, 1833.

To Messrs Ewin and Heartte—As you have asked me to give my opinion of the merits of those instruments of your manufacture which I have either used or examined, I cheerfully state that as far as my opportunities of my becoming aquainted with their qualities have gone, I have great reason to think well of the skill displayed in their construction. The neatness of their workmanship has been the subject of frequent remark by myself, and of the accuracy of their performance I have received satisfactory assurance from others, whose opinion I respect, and who have had them for a considerable time in use. The efforts you have made since your establishment in this city, to relieve us of the necessity of sending elsewhere for what we may want in our line, deserve the unqualified approbation and our warm encouragement. Wishing you all the success which your enterprize so well merits, I remain, yours, &c.

B. H LATROBE,
Civil Engineer in the service of the Baltimore and Ohio Railroad Company.

A number of other letters are in our possession and might be introduced, but are too lengthy. We should be happy to submit them upon application, to any person desirous of perusing the same. m18

### AN INTERESTING AND USEFUL MAP.

A friend of ours has now in a state of forwardness, a Map upon which will be delineated nearly all the Railroads now chartered in the U. States. It is designed to show the *present* contemplated connexion of the different lines, as well as where others may hereafter be constructed to connect with them. It will be completed in a few weeks, and may be had either in sheets, or put up in morocco for pocket maps, in any quantity, by applying to the subscriber. D. K. MINOR, 35 Wall street.

New-York, August 14, 1833.

### NOTICE TO MANUFACTURERS.

☞ SIMON FAIRMAN, of the village of Lansingburgh, in the county of Rensselaer, and state of New-York, has invented and put in operation a Machine for making Wrought Nails with square points. This machine will make about sixty 6d nails, and about forty 10d nails in a minute, and in the same proportion larger sizes, even to spikes for shins. The nail is hammered and comes from the machine completely heated to redness, that its capacity for being clenched is good and sure. One horse power is sufficient to drive one machine, and may easily be applied where such power for driving machinery is in operation. Said Fairman will make, vend and warrant machines as above, to any persons who may apply for them as soon as they may be made, and on the most reasonable terms. He also desires to sell one half of his patent right for the use of said machines throughout the United States. Any person desiring further information, or to purchase, will please to call at the machine shop of Mr. John Humphrey, in the village of Lansingburgh.—August 15, 1833. A29 tf RM&F

### TO RAILROAD COMPANIES.

☞ PROFESSOR RAFINESQUE, of Philadelphia, will undertake to build CARS that will carry along their own railway, and may be used on level M'Adam roads. They will save ten millions of money to be wasted on 1000 miles of iron railroads to be laid in the United States within a few years, and dispense with tracks and double tracks. These Cars may be drawn by horses or steam. He claims to have discovered them ever since 1825, by his caveats filed in the Patent Office. Apply, post paid. S1 R J M M & F

### INCOMBUSTIBLE ARCHITECTURE.

☞ INCOMBUSTIBLE dwelling-houses and buildings of all kinds devised or built in New York, or any part of the United States, as cheap as any other combustible buildings. Actual buildings and houses rendered incombustible at a small additional expense.

SHIPS of all sorts, and Steamboats, rendered incombustible, and not liable to sink, at a small expense.

For sale, 10,000 lbs. of ANTIGNIS, or Incombustible Varnish, at one dollar per lb.

Apply to C. S. RAFINESQUE, Professor of Hist. and Nat. Sciences, Chemist, Architect, &c. in Philadelphia, No. 39 North 8th street. A pamphlet given gratis.

References in New-York.—Mr. Minor, Editor of the Mechanics' Magazine; Messrs. Rushton & Aspinwall, Druggists.

Editors in the city or country, copying this advertisement, will receive a commission on any contract procured by their means. S1 R J MM &F

### RAILWAY IRON.

☞ Ninety-five tons of 1 inch by ¼ inch, } *Flat Bars* in
200 do. 1½ do. ¼ do. } lengths of 14 to 16
40 do. 1¼ do. ¼ do. } feet counter sunk
900 do. 2 do. ¼ do. } holes, ends cut at
800 do. 2½ do. ¼ do. } an angle of 45 degrees with splicing plates, nails to suit.
soon expected.

250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.

Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels.

Axles of 2¼, 2⅜, 2½, 3, 3½, 3¼, and 3½ inches diameter for Railway Cars and Locomotives of patent iron.

The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment. A. & G. RALSTON,
9 South Front street, Philadelphia.

Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use, both in this country and Great Britain, will be exhibited to those disposed to examine them. d71meowr

### LOCOMOTIVE ENGINES.

☞ THE AMERICAN STEAM CARRIAGE COMPANY, OF PHILADELPHIA, respectfully inform the public, and especially Railroad and Transportation Companies, that they have become sole proprietors of certain improvements in the construction of Locomotive Engines, and other railway carriages, secured to Col. Stephen H. Long, of the United States Engineers, by letters patent from the United States, and that they are prepared to execute any orders for the construction of Locomotive Engines, Tenders, &c. with which they may be favored, and pledge themselves to a punctual compliance with any engagements they may make in reference to this line of business.

They have already in their possession the requisite apparatus for the construction of three classes of engines, viz. engines weighing four, five, and six tons.

The engines made by them will be warranted to travel at the following rates of speed, viz. a six ton engine at a speed of 15 miles per hour; a five ton engine at a speed of 18 miles per hour; a four ton engine at a speed of 22 1-2 miles per hour. Their performance in other respects will be warranted to equal that of the best English engines of the same class, with respect not only to their efficiency in the conveyance of burthens, but to their durability, and the cheapness and facility of their repairs.

The engines will be adapted to the use of anthracite coal, pine wood, coke, or any other fuel hitherto used in locomotive engines.

The terms shall be quite as favorable, and even more moderate, than those on which engines of the same class can be procured from abroad.

All orders for engines, &c. and other communications in reference to the subject, will be addressed to the subscriber, in the city of Philadelphia, and shall receive prompt attention.

By order of the Company,
WILLIAM NORRIS, Secretary.

December 2d, 1833.


For further information on this subject see No. 49, page 772 of this Journal. 45

[*From the Evening Post.*]

We have looked over the Fifteenth Annual Report, made to the Legislature of this State by the Directors of the Institution in this city for the Instruction of the Deaf and Dumb. From this document we learn that the whole number of pupils in the institution at present is 134, having increased from 87 since the last report. During the present year 11 have been dismissed and 58 admitted. The greater part of the pupils, as we learn from the report of the Superintendent of Common Schools, contained in the appendix, are educated at the expense of the State. Ninety-seven, the whole number which the law authorizes, are provided for in this manner. Of the remainder, 11 are supported by the supervisors of the city of New-York, 5 by Legislature of New-Jersey, 3 by the New-York Female Association; 15 are pay pupils, and 3 are educated at the cost of the Institution. The cessation of lotteries in the State has cut off one of the sources of income enjoyed by this institution, amounting to several thousand dollars. This diminution of its means will, it is said, prove a serious check to its usefulness; an application is therefore to be made to the Legislature for a grant to make up the deficiency. Very considerable improvements have recently been introduced into the methods of instruction. Two additional professors have been added to the five by whom the task of education has been hitherto performed. A class is about to be formed for the purpose of receiving lessons in articulation, after the method by which the deaf and dumb have been taught to speak in some of the European institutions. Among the improvements which have been introduced into the course of instruction, is the method of teaching the construction of language by the means of symbols. Each character denotes a particular part of speech, and by a series of modifications is also made to represent inflections of language, comprehending nouns and pronouns in their several cases, adjectives in their various degrees of comparison, and verbs in their various forms.—Their use is to show the artificial arrangement of words in language, after a knowledge of the meaning of single words has been acquired. It is said that this method is exceedingly ingenious, and has been attended with great success. The following are mentioned as some of the most important changes and improvements effected in the institution since the last year.

1. A small library adapted to juvenile reading, and a philosophical apparatus to illustrate truths in physics and astronomy, have been procured.

2. The number of pupils has been increased by nearly one-third, and two additional professors have been employed.

3. A full supply of large slates, of the same quality as those heretofore in use, has been imported from Wales.

4. An excellent set of models for drawing has been received from Paris, and instruction is given to a class weekly in this useful art.

5. The debt incurred for the erection of the building has been extinguished.

6. The lawn in front of the edifice has been improved by planting trees and laying out walks for the purpose of providing a promenade and play ground for the pupils.

Courses of lectures are also now given in six departments of knowledge under the direction of a professor.

"The lectures are given three evenings in a week, during hours which are allotted neither to study nor mechanical operation, and they are so arranged in point of time and duration as neither to be too burdensome to the professors, nor to be regarded by the pupils in the light of a task. The departments of instruction embrace the following subjects:

1. Those branches of science which treat of nature, and of which the object is to discover the properties and relations of all bodies.

2. Description of the mineral, vegetable and animal kingdom.

3. Rise, progress, and present condition of the arts, commerce and agriculture.

4. Geography, physical and political.

5. History, ancient and modern, sacred and profane.

6. The science of government.

Each lecture is reduced to writing in order that the subject matter may be referred to and studied by the pupils at their future convenience. These intellectual exercises are not embraced within the limits of a common education; and besides exciting new interest in the pupils by varying the monotony of their ordinary pursuits with a mixture of more attractive subjects, they cannot fail to be in the highest degree instructive, by opening to their investigation sources of knowledge hitherto unexplored, and of the value of which they can have formed no estimate. Too much praise cannot be accorded to the principal and professors, in whose zeal and devotion this essential improvement, involving great labor on their part, had its origin."

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Advices from Vera Cruz to Feb. 18th, state that a *conducta* of $1,200,000 had just arrived there from Mexico. Gen. Barragan, Minister of War, and Garay, Minister of Finance, had both resigned.—[Jour. Com.]

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AMERICAN FUNDS.—LONDON, February 4th.

*Redeemable:*

| | | |
|---|---|---|
| United States | 5 per cent | 1835. |
| New York | 6 | 1837. |
| do. do | 5 | 1838, 40, 41. |
| Virginia | 6 | 1858 ..... 105½ |
| do. | 5 | 1845, 51. |
| Ohio | 6 | 1850. |
| Louisiana | 5 | 1834, 39, 44, 49..96 |
| Mississippi | 6 | 1841, 5, 51, 6 |
| Alabama | 5 | 1863. |
| Indiana | 6 | 1852. |
| Illinois | 6 | 1850. |

BULLION.

| | Per oz. | | Per oz. |
|---|---|---|---|
| Portugal Gold in coin | 0 0 0 | New dols with pillars | 0 4 11½ |
| Foreign Gold in bars | 3 17 9 | New dols without do. | 0 4 10½ |
| New Doubloons | 0 0 0 | Silver in bars St'd. | 0 4 11½ |

[*From a Correspondent of the Daily Advertiser.*]

LIVERPOOL, January 7.—The transactions in Cotton this week amount to 15,208 bales of all descriptions, viz:

| | | | |
|---|---|---|---|
| 223 | Sea Islands at | 14 a 21½ | |
| 20 | Stained | 7 a 12½ | |
| 5636 | Uplands | 7¾ a 8 | (20 a 6) |
| 3280 | Orleans | 7½ a 9¾ | |
| 1096 | Alabamas | 7 a 8½ | |
| 2728 | Brazils | 8 a 11½ | |
| 110 | West India | 6¾ a — | |
| 1120 | East India | 5 a 7½ | |

The market has been heavy throughout the week, and we find it necessary to reduce our quotations for all descriptions ¼d per lb. especially for New Uplands which continues to be pressed upon the market, even at the decline, owing to the scarcity of Egyptian, Sea Islands bring forward full prices, and have rather an upward tendency; 500 of the American were in speculation, and 300 together with 400 Surats, and 300 Brazils for export, and the import of the week is 19,180 bales.

Ashes in very limited demand, and the sales trifling. Nothing done in Naval Stores. Rice, 340 tierces of old, were sold at 11s a 15s 6d per cwt. Flaxseed, 85s per hhd. has been taken for 200 hhds. and 62s per cwt for 20 tierces of new Clover-seed. No change of interest in the Grain market, but sweet Flour in bond is wanted, but holders will not accept the prices offered. Tobacco remains without any alteration of moment.

LIVERPOOL MARKETS, Feb. 3.—COTTON.—The sales today are estimated at 2000 bags, of which 500 American and Brazil have been taken for export. Prices remain as on Saturday.

Feb. 4.—The market has been extremely dull today. The sales are estimated at from 800 to 1000 bags, and prices are with difficulty maintained.

LONDON MARKET, Feb. 4.—COTTON.—There was a general decline on all kinds last weeks of 2s per cwt. The reduction has induced holders to withdraw their sales for the present, and though the market appeared heavy yet no parcels are pressed into it.

SUGAR.—The new sugar market continued very steady, sales nearly 3000 hhds. and tierces, being extensive for the season; bright coloury descriptions commanded a further advance of 6d. to 1s per cwt.; low qualities heavy, and former prices scarcely could be obtained. This morning the general demand for Muscovadoes continued unabated. The refined market improving, and prices rather higher. The improvement in Bengals this forenoon is maintained, but there are few sales.

TALLOW has declined 6d. in the cwt.

*Agricultural Report for January.*—The accounts from all low and parts of the country, in consequence of the deluge of rain, are most melancholy; the immediate losses sustained are great, and the effects which may too probably be expected of embarrassing the spring culture, must be highly injurious to the farms.

LONDON, Feb. 6.—Consols 88¼; do for Accounts, 88¼; French 5 per cent. 106¼.

LIVERPOOL CORN EXCHANGE—FRIDAY.—Notwithstanding we have rather a limited arrival of grain and flour fresh up since Tuesday, the trade has ruled for all articles extremely dull to-day, and there does not appear to be much confidence on the part of buyers at the same time. The late large supply is not forced upon the market, and we can therefore hardly quote any reduction in prices, though the dullness so generally existing would most likely induce holders in partial instances to give way a little below the currency of Tuesday last.

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CINCINNATI, March 12.—FLOUR—From boats, at $2.76 a 2.87. From store, $3 is still demanded.

WHISKEY.—This article has risen a shade since our last. It now sells briskly at 18¼. But little in market.

PORK BACON & LARD.—There has been no change in these articles since our last.

| | | | |
|---|---|---|---|
| Pork, Mess | bbl. | 10 00 a 10 25 | |
| —— Prime, | bbl. | 8 00 a 8 25 | |
| —— Corgo, | bbl. | 5 00 | |

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CHARLESTON, March 13.—*The Market*—[*Semi-weekly Report.*]—COTTON.—The weather, on Monday and Tuesday, was so unfavorable that little business was transacted. Yesterday, however, it became clear and pleasant, and sales to a considerable extent were effected, at the closing prices of last week. We make no alteration in quotations.

RICE.—This article continues very dull. No sales have been effected over 2¾. Holders seem unwilling to submit to a further reduction—and we understand some shipments have been made on owner's account.

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☞ Those papers with which the *American* exchanges, and in which the following advertisements are inserted, will confer a favor on the subscriber by giving the following a few insertions:

Subscribers who are indebted for the *New York American*, the *Railroad Journal*, *Mechanics' Magazine*, or *New York Farmer*, are respectfully requested to remit the amount by merchants, or other gentlemen visiting the city *this spring*, and, if possible, in notes of the United States Bank, or its Branches, as the expense of postage and the discount on notes of distant Banks, is a great tax upon the Office.

VOL. III. OF THE RAILROAD JOURNAL AND ADVOCATE OF INTERNAL IMPROVEMENTS is published once a week in quarto form, with 16 pages to each number, at $3; or in *semi-monthly* form, of 32 pages, stitched in a cover of colored paper, at $4 *per annum, in advance.* The *first* and *second* volumes of the Journal may be had in *two* parts to the year, either stitched in *covers* or bound in boards, at the subscription price with price of binding, in one part, 50 cents, in two parts $1 per volume. Those in covers may be sent by mail to any part of the country, the same as a magazine. Published at No. 35 Wall st., New-York, by D. K. MINOR, Editor and Proprietor.

THE MECHANICS' MAGAZINE AND REGISTER OF INVENTIONS AND IMPROVEMENTS is now just commencing its *second* year. It will be continued in a manner altogether *superior* to that of the first year. It has drawn forth many valuable correspondents, in different parts of the country, with the assistance of whom, and those who may hereafter contribute to its columns, together with the ability of Mr. JOHN KNIGHT, formerly, and *for several years*, proprietor and publisher of the LONDON MECHANICS' MAGAZINE, who is engaged as Editor, the proprietor has no hesitation in saying that it will be found worthy of an extended circulation and a liberal support. The *first year*, or *two* first volumes, *having been stereotyped*, may now be had either in numbers, or bound in boards—either at *wholesale* or *retail*. Price $1 50 per vol. in numbers, or $1 75 in boards, or $3 per annum. A liberal discount made to the trade. Published by the proprietor, D. K. MINOR, at No. 35 Wall st. N. Y.

THE NEW-YORK FARMER AND AMERICAN GARDENER'S MAGAZINE, has commenced the *second* volume of a *new series*. It is published once a month, in quarto form of 32 pages to each monthly number, at $3 per annum *in advance*. The last volume may be had either stitched in a *cover*, so as to be sent by mail, or in boards. Price, *stitched*, $3 25; in boards, $3 50. *Each subscriber who pays in advance, or previous to the first of April, free of postage or commission, will be entitled to eight additional pages to each monthly number, or 96 extra pages to the volume.* Published at No. 35 Wall street, N.Y. D. K. MINOR, Proprietor.

A QUARTERLY JOURNAL OF AGRICULTURE AND MECHANICS will hereafter be published at the same office. Each quarterly number will contain about 300 large *octavo* pages, embracing the most *choice* articles from the best *agricultural* and *mechanical* publications both in America and Europe. It will form 2 volumes to the year, of about 640 pages each, and will be put up like other quarterly publications, so as to be sent by mail. Price, $5 per annum, in advance.

N. B. *A small edition only will be published.*

D. K. Minor also publishes the NEW-YORK AMERICAN, *daily, tri-weekly,* and *semi-weekly.*

☞ All Letters and Communications for the above publications, may be addressed, *free of postage*, to

D. K. MINOR.

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*List of Subscribers to the Railroad Journal who have paid in advance to Jan.* 1, 1835, *—continued from March* 8, 1834.

Roberts & Carmickle, Saxtonville, N. J.
Horatio Allen, Charleston, S. C.
J. R. Bartlett, Providence, R. I.
H. Bradford, Madison, Madison co., N. Y.
H. Kochler, Tamaqua, Pa.
T. B. Moore, Tamaqua, Pa.
Lexington and Ohio Railroad Company, Lexington, Ky.
C. F. Garnett, Petersburg, Va.
P. T. Jackson, Boston, Mass.
Kirk Boott, Lowell, Mass.
Thomas Hutton, Louisville, Indiana.
P. Petton, Monticello, Sull. co., N.Y.
J. B. Potter, Amsterdam, N. Y.
Ira Davenport, Hornesville, Steuben co., N. Y.
Thomas Meredith, Carbondale, Pa.
J. C. Elston, Crawfordsville, Indiana.
Samuel Appleton, Boston, Mass.
E. F. Johnson, Utica, N. Y.
W. Morris, Muncy, Pa.
T. B. Jervis, Rochester, N. Y.
H. Langtry, Columbin, Ten.
Benj. E. Pierson, Memphis, Ten.